POSTPARTUM ADAPTATION: FIRST-TIME MOTHERS' EXPERIENCES

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Postpartum Adaptation:
First-Time Mothers' Experiences

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Abstract

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This descriptive, correlational study was designed to investigate factors that influence postpartum adaptation by first-time mothers. One purpose was to examine how first time mothers perceive their network structure, perceived social support, and postpartum adaptation. A second purpose was to investigate the relationships among network structure, perceived social support, personal factors, and postpartum adaptation. A third purpose was to assess the affects of personal factors on network structure, perceived social support, and postpartum adaptation.

A non-probability, convenience sample of sixty-five women were recruited from four physician clinics in St. John's and the surrounding area, and the Eastern Health Unit. Two instruments, the Social Network Inventory (SNI) and Postpartum Self-Evaluation Questionnaire (PSQ), were used for data collection in this study. Demographic Data Sheet (DDS) was also used for data collection.

Descriptive data were generated for the PSQ subscales, social network, perceived social support, and personal characteristics. Intercorrelations were derived for each of the PSQ subscales and the SNI types of

support variables. Correlation coefficients were computed for the subscales of the PSQ and the SNI. The t-test and one-way analysis of variance were used to examine the effects of personal factors on the PSQ subscales, social networks and perceived social support. Step-wise multiple regression analysis was also used to identify the best predictors (social support or personal properties) of postpartum adaptation.

Study results indicated that most demographic, health, and knowledge and experience variables had a significant effect on at least one of the PSQ subscales. But only maternal age and prenatal class attendance demonstrated any significant effect on network structure, and maternal age, maternal occupation and prenatal class attendance on types of support provided by members of the network. Results of the relationships among network structure, types of support and psychosocial adaptation depicted low and non-significant correlations for the most part. Only material and comparison support correlated significantly with any of the PSQ scales. The resulting correlation coefficient values were also low. Additionally, the only network structure variables that revealed a significant correlation with the PSQ scales were percent kin, percent female members, percent female kin and percent male kin. Again the resulting

coefficient values were low.

One important recommendation is the need for nurses to focus on the changes that occur in social supports, extraneous variables and psychosocial adaptation over time. This suggests the need for the use of more longitudinal research designs, inclusion of findings on time dependent changes in educational curricula, and incorporation of change findings into nursing practice.

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Dedication

This thesis is dedicated to my mother, Dorothy Andrews, whose unselfish love and support as a mother and a grandmother made this goal a reality.

This I will always cherish.

Table of Contents

List of Tables

List of Figures

List of Appendices

Chapter 1

INTRODUCTION

When 'motherhood' is seen as a transitional process, the implication is that change will occur with time and across situations. Theoretical formulations and empirical findings on transition to motherhood suggest that there are "critical periods" in the postpartum for assimilating information, developing perceived and actual competency in the maternal role, and achieving an optimal level of psychosocial adjustment and functional status. If problems occur at crucial stages, this may have significant repercussions for not only short-term but also long-term postpartum adaptational outcomes.

The trend towards early discharge from the hospital following the birth of a baby is believed to be problematic for a number of reasons. Although research findings are inconclusive on the duration of the "taking-in" or "restorative" phase, it is generally agreed that women are more preoccupied with their own needs, tend to express passive and dependent behaviours, and spend most of the time sleeping and talking to others about the labour and delivery experience (Gay, Edgil & Douglas, 1988; Rubin, 1984). If discharged before the "taking-hold" or "learning readiness" phase begins, new mothers may experience unnecessary stress when trying to recall

at home information provided in the hospital (Lemmer, 1987).

The current study was designed to investigate factors believed to have a significant impact on first-time mothers' perception of postpartum adaptation at six to eight weeks. One purpose was to examine how first-time mothers perceive their social support networks, level of support and postpartum adaptation. A second purpose was to investigate relationships among network structure, perceived social support, personal factors, and postpartum adaptation in the first six to eight weeks postpartum. A third purpose was to assess the effects of personal factors on network structure, perceived social support and postpartum adaptation.

Background and Rationale

Concerns about successfully adjusting to the move from a dyad to a triad family occur at a time when primiparous women are least prepared to handle them. Besides the physical and psychological fatigue of labour and delivery (Brouse, 1988; Crnic, Greenberg, Robinson & Ragozin, 1984; Mercer, 1985; Rubin, 1984; Younger, 1991), much energy is expended in trying to balance demands of infant care, household chores and spousal and family relationships while attempting to meet personal physical and emotional needs (Ament, 1990; Avant, 1987; Becker,

1980; Gay et al., 1988; Gruis, 1977; Majewski, 1987; McKenzie, Canaday & Carroll, 1982; Mercer, 1981; Walker, Crain & Thompson, 1986a, 1986b). The occurrence of one or more problems in these areas may delay postpartum adaptation.

The quality and frequency of social support, whether from spouse, family members, friends and coworkers or health care professionals, have been identified as significant factors in successive maternal adaptation in the early postpartum (Avant, 1987; Cronenwett, 1984, 1985a, 1985b; Hampson, 1988; Wandersman, Wandersman & Kahn, 1980; Mercer, 1981, 1985; Pridham, Lytton, Chang & Rutledge, 1991; Tulman, Fawcett, Groblewski & Silverman, 1990; Younger, 1991). Several studies demonstrated a positive correlation between adaptation to the maternal role and social support networks (Affonso, 1987; Belsky & Rovine, 1984; Cronenwett, 1985b; Hampson, 1988; Wandersman et al., 1980; Lederman, Weingarten & Lederman, 1981; Majewski, 1987; Mercer, 1985; Michaels & Goldberg, 1988; Niven, 1992; Pridham et al., 1991; Rubin, 1984). Despite evidence of a strong correlation between social support and adaptation to the maternal role, Cronenwett (1984) and Majewski (1987) suggest that it is the nature of the social network, as opposed to its size, that determines the level of support (ie., emotional,

instrumental, informational and appraisal). Husbands and maternal mothers have been identified as the most significant members of support networks (Brouse, 1988; Cronenwett, 1984, 1985a, 1985b; Curry, 1983; Harrison & Hicks, 1983; Majewski, 1987; Mercer, 1985; Smith, 1989; Tinsley & Parke, 1984).

Many women arrive home ambivalent about their ability to be effective parents (Hampson, 1988; Mercer, 1981, 1985). The security of the hospital environment and nurses' support is no longer present (Mercer, 1985; Niven, 1992; Rubin, 1984). Anxiety and feelings of abandonment increase when fathers return to work and grandmothers return home. When left alone with the new baby, first-time mothers often experience great difficulty integrating knowledge and skills related to infant care (Ament, 1988; Donaldson, 1991; Gruis, 1977; Mercer, 1985; Michaels & Goldberg, 1988; Niven, 1992; Rubin, 1984).

When support is limited primiparous women express more physical and emotional concerns than multiparous women who often rely on previous childrearing experiences to buffer the impact of stressful parenting events (Brouse, 1988; Bull, 1981; Gardner, 1991; Harrison & Hicks, 1983; Lemmer, 1987). Research findings have also shown that when new mothers are exposed to relatives, especially

maternal grandmothers, with incongruent views on childrearing practices and infant feeding methods, they may experience greater stress and role conflict, and have decreased self-confidence (Crawford, 1984; Hampson, 1988; Mercer, 1985; Niven, 1992; Pridham et al, 1991; Tinsley & Parke, 1984; Walker et al., 1986a, 1986b).

There are a number of personal and contextual factors, besides social support networks and level of support, that influence successful postpartum adaptation to the maternal role. First-time mothers' ability to adapt to parenthood may be a function of maternal age and personality, previous experience with babies, perceptions of childbirth, infant temperament and maternal health (Ament, 1990; Majewski, 1987; Mercer, 1981, 1985).

Study findings suggest that first-time mothers in their twenties have a much greater psychosocial readiness for coping with the maternal role than those in their thirties who may have higher expectations for themselves (Mercer, 1981, 1985). Women with poor self-esteem often experience greater role conflict and feelings of intimidation when confronted with conflicting advice regarding appropriate role behaviour (Crawford, 1984; Cronenwett, 1985a, 1985b; Tinsley & Parke, 1984). Further, research findings indicate that women with a limited knowledge about and exposure to infant needs and

effective care often become stressed when unable to satisfy the needs of very demanding babies than those with more indepth knowledge and a greater experiential base (Mercer, 1985; Pridham et al., 1991; Rubin, 1984).

Problem Statement

Research studies investigating transition to motherhood have increased significantly over the past decade. However, considerable knowledge gaps continue to exist due to inconsistent findings and tentative conclusions, and variant conceptual and operational definitions of the major components of the transition to motherhood construct. Methodological limitations, especially the use of small convenience samples, inadequate psychometric testing of study instruments, heavy reliance on cross-sectional data and insufficient attention to the effects of extraneous variables, reduce the conclusiveness of study findings and severely restrict generalizability.

This study investigates how first-time mothers on the Avalon Peninsula of Eastern Newfoundland compare with their counterparts elsewhere with regards to the influence of personal factors (demographic, health, and knowledge and experience), network structure (size, members status - female, male, married, role relationship, age and number of children -, and frequency

of contact) and type of support (emotional, instrumental, material and comparison) on postpartum adaptation.

Research Questions

The study was designed to answer the following research questions:

1. What is the nature of first-time mothers social structure network and the most frequent types of support derived from that network?
2. What types of social support are perceived to be most and least effective in helping new mothers adapt to motherhood?
3. Is there a relationship between perceived social support and successful postpartum adaptation for first-time mothers?
4. Is there a relationship between the network structure and successful postpartum adaptation for first-time mothers?
5. How do health variables, demographic characteristics and knowledge and experience of motherhood affect first-time mothers network structure, perceived social support and postpartum adaptation?

Conceptual Framework

Maternal role acquisition has been described as a time-dependent, stressful experience that is mediated by social and cultural environmental factors and personal characteristics (Cronenwett, 1984, 1985a, 1985b; Cronenwett & Kunst-Wilson, 1981; Lederman et al., 1981; Mercer, 1981; 1985, 1986; Pridham et al., 1986; Rubin, 1967a, 1967b, 1984; Walker et al., 1986a, 1986b). The conceptual framework for this study was based on Cronenwett's (1985a, 1985b) model. This model depicts interdependent relationships among properties of the individual and social network structure, perceived social support and psychological responses to parenthood (see Figure 1).

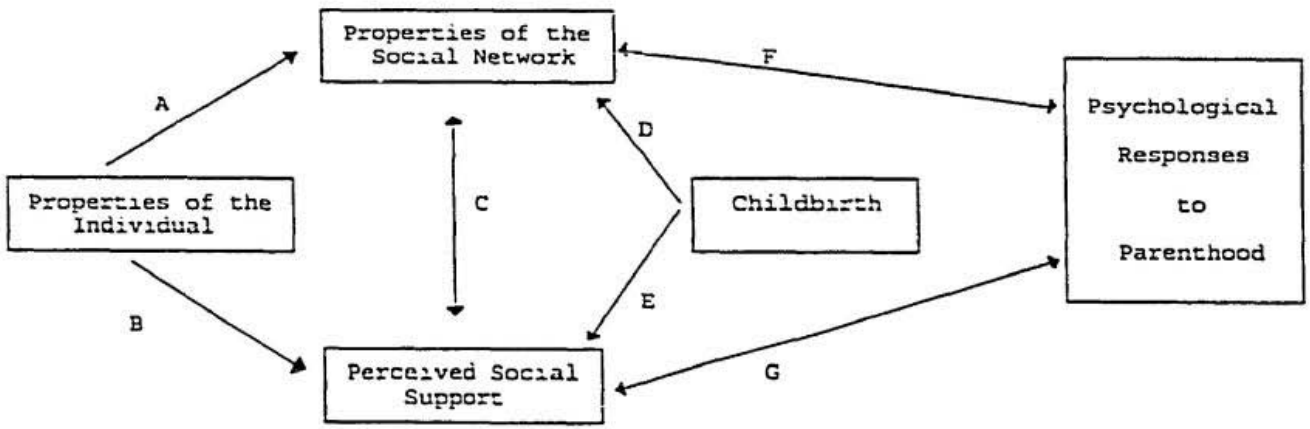
As discussed by Cronenwett (1985a, 1985b), individual properties (sociodemographic, health, psychological, knowledge, experience) interact with properties of the social network (size, density, frequency, composition) and perceptions of social support (emotional, instrumental, appraisal, informational) to determine psychological responses to parenthood (such as, satisfaction with life experiences, motherhood and infant care, confidence in coping abilities, quality of relationship with spouse and his participation with child care). Personal properties also influence changes in the

social network structure and perceived social support. Further, structure and perceptions of support influence each other.

Cronenwett's (1985a, 1985b) model attempts to capture the changes that occur in network structures, perceptions of social support and psychological responses of the individual following childbirth. This model, adapted from House's (1981) theory on stress and social support, is an appropriate framework for the study of women experiencing transition to motherhood for the first-time because it accounts for many of the variables that relate to the transitional process.

There is a growing body of empirical work that demonstrates the important role played by personal and support variables in shaping adaptational outcomes in the postpartum. Many situational variables evolve on a parallel course with transitional variables and do not necessarily interact with them. Cronenwett (1984, 1985a & 1985b) argues that social network structure and perceived level of social support are the main environmental factors influencing psychosocial adaptation.

Figure 1. Relationships Among Network Structure, Social Support, and Psychological Responses to Parenthood



Source: Cronenwett, L.R. (1985a) Network structure, social support, and psychological outcomes of pregnancy. Nursing Research, 34(2), 93-99.

Definition of Terms

Postpartum Period

The first six to eight weeks following childbirth was the period selected for focus in this study.

Social support

Social support is conceptualized in terms of network structure and perceptions of level of support. Structure refers to size, density, role relationships, and demographic factors defining network members. The most common types of support include emotional (communicating love, caring, trust, or concern), instrumental (direct help through money, household chores, work), informational (provides relevant information and helps problem-solve) and comparison (exposure to comparable information of others and mutual sharing of ideas and feelings) (Cronenwett, 1985b).

Personal Properties

For the purpose of this study, personal properties are defined in terms of demographic variables (marital status, maternal education, occupation and age, employment status of husband, duration and frequency of husband's absences from home), health (type of delivery) and knowledge and experience (prenatal education, feeding method, previous experience with infants).

Postpartum Adaptation

Postpartum adaptation is defined in terms of psychological responses to parenthood. The specific psychological responses addressed are: quality of relationship with spouse, perception of spouse participation in infant care, satisfaction with labour and delivery, satisfaction with life events, confidence in ability to cope with tasks of parenting, satisfaction with motherhood and infant care, parental support maternal role, and support from relatives and friends (Lederman et al., 1981).

Chapter 2

LITERATURE REVIEW

The purpose of this review is to examine the literature on transition to motherhood. Consideration is given to theoretical perspectives and empirical findings in this area. The first section of the review presents a brief overview of theoretical formulations used to conceptualize transition to motherhood. The second section highlights relevant empirical findings on the usefulness of proposed theoretical frameworks. The third section considers the influence of personal (demographic and health variables, knowledge and experience) variables on the transitional process. The final section focuses on key aspects of social support (perceived social support and support networks) which may also affect movement through the transitional process.

Theoretical Perspectives

Rubin's (1967a, 1967b, 1984) theoretical work on maternal role attainment provided the foundation for many research investigations in maternal-child nursing over the past four decades. Rubin used a field design, consisting of observational and face-to-face interviewing techniques, to document the process of maternal role acquisition in primiparas and multiparas. Items in the data set which had relevancy for role acquisition were

subjected to indepth analysis and classified on the basis of preliminary work in the area by the author. Rubin also acknowledged the important influence of role theorists, such as Mead and Sarbin, in shaping conceptual meanings of the resulting categories.

Rubin (1967a) conceptualized maternal role attainment as a continuously evolving process with demonstrated time-specific internal and external changes that eventually culminated into maternal identity, the projected outcome of role-taking. The time period defining the process spanned from early pregnancy to six months postpartum. The 'taking-on' and 'taking-in' phases of role acquisition were characterized by three dimensions: 1) self concept as object (ideal image, self image and body image), 2) process or operations (mimicry, role play, fantasy, introjection-projection-rejection), 3) and models or referents (previous children, baby, self, mother, peers, generalized others). The 'letting-go' of former role identities was seen as an important step defined by the operational category grief-work.

In stressing the important role played by mediating factors in maternal role acquisition, Rubin (1967a, 1967b) gave recognition to situational contexts and time in the maternal role. Dramatic changes in maternal-child health care, in particular, and the sociocultural

context, in general, since the 1960s and 1970s, has led some authors to question the applicability of Rubin's maternal role attainment categories for today's mothers (Martell & Mitchell, 1984; Gay, Edgil & Douglas, 1988; Ament, 1990). Gay et al. (1988) note that although Rubin's theory was derived inductively, role theorists and Freud and Freudian disciples shaped conceptualization of categories that emerged from the data. These authors, as well as Martell and Mitchell (1984) and Ament (1990), stress the importance of developing a knowledge base for maternal care that is grounded in the reality of today's practice world.

Mercer (1981) proposed an interactionist theoretical framework for maternal role attainment using key concepts from role theory. A key assumption of this framework was that maternal perceptions of role competency interact with the infant and others' responses to enactment of the role and the situational context. In the midst of these interactions, a core self is acquired through socialization. The process of maternal role acquisition was postulated to progress through four stages: 1) anticipatory (psychosocial adjustment during pregnancy), 2) formal (care-taking tasks following birth), 3) informal (movement from reliance on others' rules and directions to establishing personal role behaviours),

4) and, personal (imposition of a personal style on role performance through psychological and social adjustments). Mercer (1981) noted that the operations occurring in these stages not only paralleled those described by Rubin (1967a, 1967b) but also achieved the same outcome, maternal identity. The crucial difference between the two theorists was the time frame allotted for achieving maternal identity. Mercer believed that the time required for complete role acquisition was twelve months, as opposed to Rubin's (1967a, 1967b, 1984) six months projection.

Mercer (1981) also incorporated key situational factors into her theoretical framework describing maternal role attainment. Several extraneous variables, identified from the literature and believed to shape maternal role attainment included: maternal age, perceptions of the birth experience, early maternal-infant separation, support systems, self-concept and personality, maternal illness, child-rearing attitudes, infant temperament and illness, and socioeconomic status.

Walker, Crain and Thompson (1986a) argued that the conceptual ambiguity surrounding maternal role attainment was partly attributed to the tendency for Rubin and Mercer to use maternal identity and maternal role attainment interchangeably. These authors used Rubin's

(1984) later work to emphasize the importance of the bonding and differentiation processes operant in the reciprocal relationship between mother and infant for maternal identity formation. The two concepts, "Myself as Mother" and "My Baby," were coined to represent the affective and cognitive components of maternal identity.

In contrast, maternal role attainment was visualized as a culturally determined concept (Walker et al., 1986a). Mercer's (1981) stages of role acquisition served as referents for an evolving maternal role that could be assessed through increasing self-confidence in role performance. Subsequently, the authors separated role attainment into subjective (perceived) and behavioral (demonstrated) components and postulated that a strong positive association would exist between them (Walker, Crain & Thompson, 1986b). Like Rubin and Mercer, recognition was given to the important extraneous effects of situational factors on the process of maternal role attainment.

There are a number of variations on how the key concepts defining maternal role attainment have been conceptualized. Some authors have directed their attention towards capturing the important role played by beliefs about, or the meaning of, parenting in maternal role attainment (Pridham & Chang, 1985; Pridham, Lytton,

Chang & Rutledge, 1991). Others have concentrated on important social and psychological changes affecting maternal adaptation or progress in maternal role attainment - quality of marital relationship, perception of labour and delivery, satisfaction with life context and mothering role, ability to cope with maternal role, and supports from significant others (Lederman, Weingarten & Lederman, 1981). Another group expanded the work beyond maternal role attainment to consider the influence of important stressors and supports on transition to parenthood (Cronenwett 1984, 1985a, 1985b; Cronenwett & Kunst-Wilson 1981; Pridham, Egan, Chang & Hansen, 1986).

Pridham and Chang (1985) and Pridham et al. (1991) identified perceptions of infant- and self-care capabilities, and evaluation of being a parent (cognitive, goal-directed, task-oriented, satisfaction) as important measures of progress in attaining the maternal role and maternal identity. Lederman et al. (1981) conceptualized adaptation to the maternal role as being a function of the quality of the relationship with the husband and his participation in child care, gratification with labour and delivery, satisfaction with life experiences, confidence in ability to cope with tasks of motherhood, satisfaction with motherhood and

infant care, and support for maternal role from parents, friends and other family members. The importance attached to the value of the role and commitment to it, as well as perceived competency, or confidence in, and satisfaction with the role parallels Mercer's (1981, 1985, 1986) theoretical assumptions.

Cronenwett and Kunst-Wilson (1981) and Cronenwett (1984, 1985a, 1985b) used House's (1981) theory of stress to develop a framework to capture the processes involved in transition to parenthood. As such, becoming a parent was seen as a stressful event buffered by properties of the individual, properties of the social network and perceived social support. Social support was conceptualized in terms of House's (1981) sources of support (network structure) and the emotional, instrumental, informational and appraisal categories of support types (perceived social support). Cronenwett (1984, 1985a) hypothesized that an interdependent relationship existed between the variables of network structure, perceived social support and adaptation to parenthood outcomes (social, psychological).

Pridham et al. (1986) reviewed the social support literature to guide development of a theoretical base to explain how contextual forces affect problem solving abilities in the early postpartum. Using social support

theorists such as Barrera (1981), DeLongis, Coyne, Dakof, Folkman and Lazarus (1982), House (1981), and Lazarus and Folkman (1984), among others, the authors argued that variations in day-to-day stressors and supports have far-reaching implications for maternal perceptions of experiences with labour and delivery, infants and parenting. It was further conjectured that successful postpartum adaptation was highly dependent on not only the ratio of stressors to supports during the intrapartum and postpartum, but also the frequency of both in matters related to the self, the infant, significant others and the community.

Some authors have chosen to shift their focus away from the process of maternal role attainment to consider the social and psychological changes experienced by new mothers in all role performance areas (Fawcett, Tulman & Myers, 1988). New mothers experience social stress while defining the maternal role (Curry, 1983; Hampson, 1989). The wide gap between prenatal preparation for motherhood and the postpartum reality of the mothering role may generate role conflict (Brouse, 1988; Hampson, 1989; Lemmer, 1986; Mercer, 1981, 1985). Several factors account for role conflict during the early postpartum: a) interference with household, infant and personal activities; b) a sense of disappointment with an

unexpected cesarean birth; c) ambivalent feelings toward the baby, that is, feelings of anger intermixed with feelings of joy; d) perception of relationship with and emotional support received from husband and others coupled with a sense of isolation; e) and, self concept or how positive the new mother feels about herself (Affonso, 1987; Majewski, 1987; Mercer, 1981).

Fawcett at al. (1988) asserted that transition to motherhood did not occur in isolation from life changes. As such, social and psychological changes in maternal role activities were believed to both influence and be influenced by changes in normal day-to-day activities associated with other roles. These authors, like Rubin (1967a, 1967b) and Mercer (1981), retained classical role theory as the overriding theoretical base. Roy's Adaptation Model was used as the theoretical framework for the various parameters (role function, physiological, self-concept, interdependence) affecting role performance. The multidimensional construct, functional status, was conceptualized in terms of the role function mode to address all aspects of role performance related to both infant care responsibilities and 'usual' daily activities (household, social and community, self-care, occupational). Provisions were also made to account for relevant situational variables, that is, health variables

were defined in terms of the physiological mode, psychosocial variables as self-concept, and family variables as interdependence (Fawcett et al., 1988).

In summary, variables defining transition to motherhood and those believed to exert a mediating effect on the transitional process have been conceptualized in different ways. While some researchers have relied on role theory to provide the theoretical base for empirical work, others used social support theory. Maternal role attainment, maternal identity, maternal or postpartum adaptation and functional status are the most common terms used to reflect different aspects of transition to motherhood. On one hand, maternal identity is seen as the end-stage of the process of maternal role attainment, while maternal or postpartum adaptation (psychosocial, physiological) is used to reflect functional status recovery in all role performance areas, as well as progress in maternal role attainment.

As with any entity conceptualized as a process, variations in time and context surface as important mediating factors. Time spent in the maternal role and situational properties were seen as important variables affecting transition to motherhood. The most consistently identified mediators included: maternal personality, age, previous experience with infants and

children, physical and psychological fatigue, social support networks, perceived social support, perception of birthing and parenting, infant behavioral and physical attributes and socioeconomic status.

Empirical Findings

Multiple instruments have been developed as operational measures for maternal role attainment and functional status. As well, a number of approaches have been followed in operationalizing mediator variables. This section summarizes the results of empirical testing on theoretical constructs and key mediating variables. A comprehensive profile of various study designs, instruments measuring key aspects of transition to motherhood and extraneous factors, and instrument reliability and validity is presented in Table 1, located at the end of the literature review.

Transition to Motherhood. Following delivery most women experience a dramatic shift in conceptualization of the self. Maternal identity evolves as the self moves from total concentration on personal needs, "taking-in," to active participation in infant care, "taking-hold". During the early taking-in phase, two to three days postpartum, mothers are preoccupied with their own needs, often dependent on the nurse to help initiate infant care activities and not very receptive to learning infant or

self care. Subjective focus on the self and the baby often lasts for three weeks or more and is heavily influenced by fatigue and a sense of confinement. Although major changes in the taking-in and taking-hold phases take place in the first three weeks postpartum, neither phase is fully established until the second or third month (Rubin, 1984).

Two studies were identified from the literature that specifically addressed the presence and duration of the taking-in and taking-hold phases as described by Rubin (1967a, 1967b, 1984). Martell and Mitchell (1984) developed operational measures to assess "taking-in" and "taking-hold" within the first 24-hours following delivery. Despite limited support for a early taking-in phase, the taking-hold phase was evident on the second day postpartum but not on the third day as Rubin had projected. There was support, however, for Rubin's assertion that a decrease in taking-in would be associated with an increase in taking-hold (Martell and Mitchell, 1984).

Ament (1990) attempted to replicate Martell and Mitchell's (1984) findings in a study which used a likert-type rating format for scale steps and five data collection points in the early postpartum as opposed to one. The findings differed from those obtained by

Martell and Mitchell. The greatest decrease in the taking-in scores and increase in the taking-hold scores occurred within the first 24-hours (between the first evening and morning following delivery) as opposed to Rubin's two to three day projections. Although Ament's findings support Rubin's maternal role attainment process, they did not confirm the projected duration of each phase.

Research findings suggest that infant concerns dominate the early postpartum period. Bull (1981) found that infant concerns (behaviour, physical care) ranged from moderate to a great deal in the early postpartum but did not depict any significant changes in the first week. Comparable findings were reported by Lemmer (1987). Graef, McGhee, Rozycki, Fescina-Jones, Clark, Thompson and Brooten (1988) found that infant concerns did not decline until three to four weeks with feeding the most frequent, behavioral (sleep disturbances, fussiness or crying) next in importance, and physical (growth and development, general health) of least importance. Harrison and Hicks (1983) identified infant concerns as late as the sixth week postpartum.

Pridham and Chang (1985) investigated how beliefs about parenthood (success in care and centrality of the infant) changed over time. As predicted, centrality of

the infant decreased, while positive evaluations of parenting success and appraisal of problem-solving skills increased. However, beliefs about parenthood did not correlate with perceptions of amount of infant difficulty or degree of bother, or centrality of infant with problem-solving skills as hypothesized (Pridham and Chang, 1985).

Findings on the frequency and duration of maternal concerns (emotional, physical) relating to the self differed across studies. Bull (1981) found that emotional concerns (fatigue, emotional tension, inability to concentrate, being a good mother, time for self) increased significantly, while physical concerns (episiotomy, constipation, haemorrhoids, breast soreness) decreased after one week. In contrast, Graef et al. (1988) reported that physical concerns were more frequent than emotional concerns in the first week but were equal for the second and third weeks. Flagler (1990) found a significant increase in the frequency of negative physical descriptors and decrease in positive emotional descriptors from in-hospital stay to 4 to 6 weeks postpartum. However, Gardner (1991) reported greater mild to moderate fatigue (situational, psychological) at two weeks than either earlier or later in the postpartum period.

Mercer (1985) developed a variety of operational measures for maternal role attainment (feelings about the baby, gratification with the maternal role, and competency in infant care - perceived and demonstrated). A semi-structured interview schedule was also used to generate qualitative data on challenges and demands, self-image and role strain. The results confirmed the importance of time for maternal role attainment. Positive feelings about the baby, gratification with the maternal role and maternal competency behaviour peaked at four months. While positive feelings about the baby and maternal competency demonstrated a significant decline between 4 and 12 months, gratification in the maternal role increased for some groups and declined for others. Significant differences were also noted in maternal ways of handling irritable babies with more positive responses at 8 and 12 months. Challenges and demands with motherhood (personal time, role skills, sleep deprivation and infant responsibility) were also time dependent. Finally, the slight increase in role strain over time was counter to expected trends (Mercer, 1985).

Flagler (1990) investigated the relationship between observed infant-mother interactions and verbal descriptors of physical and emotional feeling states. The total feeling descriptor scores depicted a moderately

positive correlation with maternal-infant interactions during hospitalization. However, these findings changed at 4 to 6 weeks postpartum. That is, as the number of negative physical descriptors increased, mother-infant mutuality decreased and anxiety levels increased.

Walker et al. (1986a, 1986b) tested a modification of the maternal role attainment models proposed by Rubin (1967a, 1967b, 1984) and Mercer (1981). Maternal role attainment was measured in terms of subjective (self-confidence) and objective (demonstrated) components, and maternal identity as attitudes toward self and baby. Significant correlations between the components of maternal identity (Walker et al., 1986a), support Rubin's (1984) assumption that a reciprocal relationship exists between mother and baby. However, the anticipated consistently strong relationship between subjective and demonstrated components of role attainment was not substantiated (Walker et al., 1986b). Further, associations between role attainment and maternal identity were time- and parity dependent (Walker et al., 1986a, 1986b). These results support Mercer's (1985) findings on the important and variant effects of time on maternal role attainment.

Bull (1981) and Graef et al. (1988) found that most mothers reported limited concerns related to husband,

family and community. In contrast, Harrison and Hicks' (1983) found that mothers continued to identify concerns about the self and family at six weeks postpartum. Major concerns were restricted to managing multiple demands (husband, housework, children, diet, family planning and fatigue).

Fawcett, Tulman and Myers (1988) designed the Inventory of Functional Status After Childbirth (IFSAC) to assess the social and psychological aspects of recovery in the postpartum. Construct validity results confirmed the multidimensional nature (infant care responsibilities, self-care activities, household activities, social and community activities, occupational activities) of the functional status construct as conceptualized. Tulman and Fawcett's (1988) findings indicated that full responsibility was achieved first for infant care.

Tulman et al. (1990) found that time was a significant factor influencing changes in total functional status. Greater confidence in the ability to cope with motherhood and infant temperament predictability were associated with increased levels of functional status (household, social and community and self-care activities) at six weeks. Confidence in being a mother, quality of relationship with husband, and infant predictability were

also associated with increased levels of functional status (social and community, and self-care activities) at three months. The predictors of functional status at six months were twofold: satisfaction with motherhood, father's participation, support and less infant difficulties was positively correlated with increased social and community, and infant care activities; and, confidence in motherhood, and less infant fussiness, unpredictability, interrupted sleep patterns and unadaptability were positively correlated with self-care and infant-care activities.

Research findings on recovery of functional status support the assumption of role theory that functional status across roles will vary with the particular stage achieved in maternal role attainment. It is also apparent from the studies investigating frequent concerns and demands in the early postpartum and the time required to achieve complete recovery of functional status that primiparas and multiparas women continue to experience difficulties in adapting to the maternal role long after the birthing process. These findings support Rubin's (1984) position that the "binding-in" process may not stabilize until the second or third month postpartum.

In a study on maternal adaptation, Lederman, Weingarten and Lederman (1981) found that time spent in

the maternal role was a significant mediating factor. Subjects reported poorer relationships with husbands, less satisfaction with life events, and less satisfaction with motherhood at 6 weeks versus 3 days. Although not statistically significant, mean scores at 6 weeks indicated that subjects were less satisfied with their husband's involvement in infant care and the support received from others. In a later study, Flagler (1990) found that increased negative emotional feelings were significantly correlated with less positive husband/wife relationships, reduced satisfaction with life events, and less support for maternal role from family and friends at 4 to 6 weeks.

Cronenwett (1984, 1985a & 1985b) developed a Social Network Inventory (SNI) to operationalize social support variables, network structure and perceived social support. Study findings failed to demonstrate differences between the sexes in the size and characteristics of social networks. Further, the emotional support category received the highest rankings from couples. Finally, relatives provided a major portion of emotional and instrumental support, co-workers the most informational and appraisal support, and friends appraisal support.

Cronenwett (1985a, 1985b) also found that emotional

and instrumental support correlated significantly with maternal confidence in the parenting role and satisfaction with parenthood and infant care. Overall, emotional and instrumental types of support were more highly associated with positive postpartum adaptation than either informational or appraisal support during the initial six weeks. While informational and appraisal types of support were more likely to be health professional based, emotional and instrumental support were more often provided by close relatives (Cronenwett, 1985a, 1985b).

Pridham et al. (1986) investigated how day-to-day stressors and supports varied in the postpartum. Although stressors and supports were found to be approximately equal and time-dependent, changes in their frequency varied across categories (self, responsibilities and tasks, resources, activities and plans, behaviour of self and others, conditions and unexpected events). In the stressor category, self-perceptions (physical and psychological) dominated for the first 15 days, and tasks/responsibilities from 16 days onward. In comparison, resources (others, services, knowledge and skills) dominated the support category for 45 days and then was replaced by activities/plans. The tendency for mothers to concentrate on themselves and

rely on available resources in the first three or more weeks postpartum concurs with Rubin's (1967a, 1984) findings. The authors also noted that supports and stressors of an existential nature (non-social activities, self health status, responsibilities and tasks, conditions and events) were more frequent than social types (activities with social functions). This conflicts with House's (1981) assertion that social supports normally dominate people's lives.

In summary, theoretical formulations and empirical work on transition to motherhood have been shaped to a significant degree by role theory (Fawcett et al., 1988; Mercer, 1981, 1985; Rubin 1967a, 1967b; Tulman et al., 1990) and social support theory (Cronenwett, 1984, 1985a; Cronenwett & Kunst-Wilson, 1981; House, 1981; Pridham et al., 1986). Often concepts of role theory were combined with observational and interview data to guide instrument development. In other cases, especially when the objective was to assess the effects of mediator variables, instruments were borrowed from other fields and based on social or psychological theory, or modified to increase their relevancy for transition to motherhood.

Empirical work, to date, suggests that greater theoretical refinement is needed before we can fully grasp the totality of the constructs reflecting

transition to motherhood. It is more pragmatic to subject existing theoretical frameworks to further empirical testing before inventing new ones. Walker et al. (1986a, 1986b), Mercer (1985) and Pridham et al. (1986), among others, emphasize the fact that multiple and confounding factors influence the maternal role process and, for the most part, are inadequately researched. In a similar vein, the reliability and validity of instruments developed to operationalize theoretical constructs have not been adequately assessed. What is especially important is that we exhaust existing possibilities instead of trying to reinvent the wheel.

Personal Factors. The literature contains conflicting evidence concerning the influence of demographic, health, and knowledge and experience variables on maternal role attainment. Ament (1990) found that primiparas taking-in scores were significantly higher than multiparas. Also, younger women (twenties age range) tended to generate higher scores for both taking-in and taking-hold in the first twenty-four hours but not at 48 hours.

Harrison and Hicks (1983) investigated the effects of parity, prenatal education, and previous experience on the frequency and degree of infant, maternal and family concerns. Primiparas and women who attended prenatal classes tended to identify more minor concerns than

multiparas and non-attenders, but all groups were equal on major concerns. In a similar study by Smith (1989), the findings suggested that primiparas had more major concerns related to infant care, whereas, fatigue, emotional tension and regulating multiple demands dominated major concerns for multiparas. Pridham et al. (1986) also found that multiparas tended to identify more concerns about demands of a social nature than primiparas.

Brouse (1988) designed a study to investigate the effectiveness of an early postpartum intervention designed to reduce infant behavior and care concerns and promote adjustment to the maternal role. Although there was no significant difference between the control and experimental groups, results indicated that mothers in the intervention group tended to have lower anxiety scores, less infant concerns and greater adjustment to the maternal role.

Mercer (1985) did not find any significant differences in feelings about the baby, competency in the role, challenges or demands, role strain or self-image in the maternal role by age group at any of the study's time periods. Despite these results, role competency scores were consistently higher for older women at each time interval, gratification with the maternal role declined

for the teenage group and increased for the 20 to 29 age group at four months postpartum, and older women identified comforting and nurturing the infant more often than other age groups.

Rutledge and Pridham (1987) failed to identify a significant correlation between maternal perceptions of competency in infant feeding and care and demographic (marital and social status, religion, race, maternal age and education) or health variables (type of delivery, infant's risk status). Crnic, Greenberg, Robinson and Ragozin's (1984) had somewhat similar findings in that infant status did not affect negative life stress, social support and maternal attitudes. Rutledge and Pridham also found that multiparas, breast feeders and women with more in-hospital preparation had higher perceptions of competency. Further, amount of maternal rest surfaced as a significant predictor of perceived competency for breastfeeding mothers.

Walker et al. (1986a, 1986b) demonstrated the variant effects of mediating variables over time. Perceived role attainment (self-confidence) was significantly correlated with maternal age and socioeconomic status at 4 to 6 weeks for multiparas only. Attitudes towards the self as mother (maternal identity) correlated with socioeconomic status at 1 to 3 days and maternal age at 4 to 6 weeks

for primiparas only. Attitudes towards the baby (maternal identity) correlated with maternal education for multiparas and socioeconomic status for primiparas at 1 to 3 days (Walker et al., 1986a). In a second study, Walker et al. (1986b) identified a significant relationship between role performance (demonstrated role attainment) and maternal age, education and socioeconomic status in primiparas women, and maternal age and infant birth weight in multiparas women.

Pridham and Chang (1985) failed to identify significant effects for maternal age, education or socioeconomic status on perceived infant- and self-care capabilities or evaluation of parenting success. Conflicting findings were reported in a later study (Pridham et al., 1991). Higher educated women and primiparas tended to rate parenting and perceived capability for infant and self care lower than the less educated and multiparas.

Parity and knowledge were also found to be key variables. Pridham and Chang (1985) found that primiparas mean scores for centrality of infant declined significantly, whereas, parenting success increased significantly between one week and one month postpartum. Pridham et al. (1991) findings revealed that primiparas evaluated parenting and care capabilities lower than

multiparas, while mothers who had preparation for birthing and helpful postpartum learning experiences (classes, rooming in) rated appraisal of care capabilities more positively.

There are also conflicting findings in the literature concerning the influence of demographic, health, and knowledge and experience variables on functional status. Tulman and Fawcett (1988) and Tulman et al. (1990) failed to demonstrate a significant effect for maternal age, type of delivery, maternal complications, infant illness or parity on the time required to attain full recovery of functional ability. However, homemakers tended to resume participation in religious organization earlier than women with outside occupations, and those with maternal or neonatal complications tended to delay returning to work Tulman and Fawcett, 1988). Functional status in household, social and community, and self-care activities significantly correlated with occupation at three weeks postpartum, parity at six weeks, and education at three months. Family income was also associated with social and community activities and infant care responsibilities at six months (Tulman at al., 1990).

Many physiological, psychological and social stressors occur during the initial six to eight weeks of postpartum. Fatigue is a common outcome of multi-level

stressors (Brouse, 1988; Harrison & Hicks, 1983; Smith, 1989; Tulman & Fawcett, 1988; Tulman et al., 1990). Findings suggest that level of physical energy is a significant correlate of the time required to recover full functional abilities.

Tulman and Fawcett (1988) and Tulman et al. (1990) found that energy levels interfered with resumption of household activities, participation in professional and religious organizations, and socialization with friends. Time surfaced as a significant confounding variable (Tulman et al., 1990). At three weeks postpartum, physical energy and type of delivery significantly correlated with the household, social and community, and self care dimensions of functional status. At six weeks, physical energy and parity correlated with the household, social and community, and self care dimensions of functional status. There were no significant correlates with functional status at three months, and only one, infant sleep pattern, with household, social and community, and self care dimensions of functional status, at six months.

Gardner (1991) also identified a significant correlation between perceived fatigue levels and maternal age and education at six weeks; and, situational fatigue (degree of stress, family crises) with maternal age at 2

days and 6 weeks. Brouse (1988) had comparable findings with older mothers (thirties age range) reporting more fatigue, anxiety and frustration than younger ones (twenties age range) at three weeks postpartum.

Curry's (1983) study findings indicated that previous experience had a positive influence on adaptation to motherhood. Subjects who identified themselves as "easy adapters" were more likely to have had previous experience with infants than "difficult adapters." The "easy adapters" self-concept scores increased significantly from the prenatal period to the third month postpartum, whereas, the "difficult adapters" scores decreased.

In summary, research findings on the degree to which demographic, knowledge and experience, and health variables influence transition to motherhood are inconsistent. One major confounding factor is time in the transition process. It is highly plausible that study results vary because of the cross-sectional nature of the data. Conversely, it could be that both mediator variables and transitional states evolve on parallel courses and do not necessarily interact with each other. A second factor is the limitation imposed by using samples with restricted variability on key extraneous variables. The use of small, non-probability samples was

the norm for most of the studies reviewed.

Social Support. Research findings indicate that there is a significant relationship between social support and ease of transition to motherhood (Cronenwett, 1984, 1985a, 1985b; Flagler, 1990; Majewski, 1987; Tulman et al., 1990; Unger & Powell, 1980). A social support network which is committed to active involvement, in terms of instrumental, emotional, informational and appraisal support is especially powerful in promoting successful postpartum adaptation (Cronenwett, 1984, 1985a, 1985b).

Social support has been found to influence first-time mothers infant care capabilities, help them develop a positive self-image of effective mothering, and decrease the impact of stress generated during the transition to motherhood (Crnic et al., 1984; Hampson, 1988; Younger, 1991). Curry (1983) identified several factors which promoted positive adaptation to the maternal role, including anticipated events, support from maternal grandmothers during the early postpartum and husbands' support with infant care and other household responsibilities. Generally, those who experienced difficulty adapting to the maternal role had much less support than the "easy-adapters." There were a number of studies with comparable findings (Crnic et al., 1984;

Cronenwett 1984, 1985a & 1985b; Crawford, 1985; Mercer, 1985; Pridham et al., 1991; Younger, 1991).

Other studies have also identified the importance of different types of support in reducing concerns and promoting adjustment to the maternal role. Harrison and Hicks' (1983) findings indicated that husbands were the most frequent sources of support, especially for role adjustments and family responsibilities, whereas, family, friends and physicians were used most often for infant concerns. Majewski (1987) and Smith (1989) had comparable findings.

Majewski (1987) found that the majority of first-time mothers identified their husbands as providing the most physical assistance, emotional support and feedback and appraisal, whereas, parent support groups and friends mostly provided guidance support. Women who identified their husbands as the most frequent providers of emotional and instrumental support also rated them as the most helpful in making the transition to parenthood more satisfying (Becker, 1980; Brouse, 1988; Cronenwett 1984, 1985a & 1985b; Majewski, 1987; Mercer, 1985; Younger, 1991).

Belsky and Rovine (1984) findings indicated that emotional and material were the most common supports provided by families. Among relatives, the majority of

new mothers viewed their mothers as having the most significant impact on postpartum adaptation (Cronenwett, 1984, 1985a & 1985b). With mothers actively involved in infant care and household chores, women have more opportunity to meet personal and marital needs, and more time to rest, identify with the maternal role, restore self-image and re-establish a close relationship with husbands (Majewski, 1987; Mercer, 1981, 1985).

Another significant factor influencing maternal adaptation is perceived satisfaction and confidence with ones role and satisfaction with support received from significant others. Lederman et al. (1981) findings indicated that primiparas had more husband involvement in infant-care, less confidence in themselves as mothers, and significantly more satisfaction with motherhood than multiparas at three days. The only significant difference that surfaced at six weeks was the lower reports of husband involvement in infant-care activities by primiparas. Also, those who attended childbirth preparation classes reported more support from parents, relatives and friends at 3 days postpartum than non-attenders, and friends and relatives at six weeks.

Cronenwett (1985a) investigated the effects of network structure and perceived social support on the dimensions of adaptation to parenthood as defined by Lederman et al.

(1981). Relatives were the most frequent members of social networks. Network structure (density) and perceived support variables (emotional, instrumental) were significantly correlated with maternal confidence in ability to cope, and emotional support with satisfaction with parenting and infant care.

In summary, most studies on social support have verified the positive effects of adequate social support on maternal postpartum adaption, especially support given by their partners and other family members. Several studies have found that emotional and instrumental support, when given by the husband/partner, have the most positive impact on maternal adjustment to motherhood.

Discussion

Current and past research on maternal role attainment incorporated both cross-sectional and longitudinal designs, multiple data collection methods and approaches, comparative subject groupings, and investigator triangulation. The number of instruments used to assess the process of postpartum adaptation to the maternal role and the differing time intervals for data collection make cross-study comparisons difficult and inconclusive (see Table 1). Although it has been consistently identified that new mothers must resolve many physiological, emotional, and social changes before achieving successful

adaptation, research findings do not clearly document these changes. More adequate documentation is required by using longitudinal and/or cross-sectional designs.

The effects of extraneous variables (health, demographic, knowledge and experience, and social supports) in varying situational contexts also require further study. What is needed is larger and more heterogeneous samples of subjects to investigate the full effects of extraneous variables. Thus, additional studies in different and comparable settings with samples from the target population will help resolve some of the theoretical and empirical differences.

Table 1: Results of Studies Related To Transition to Motherhood

Researchers	Name of Tool	Design	Criterion Measured	Reliability & Validity
Wandersman, Wandersman & Kahn (1980) South Carolina	TI Questionnaire (TIQ) TII Questionnaire (TIIQ) Personal Feelings Scales of Wessman & Ricks (PFS) General Well-Being Schedule (GWBS) Parenting Sense of Competency (PSC)	Exploratory; convenience: parenting group couples (n=41). Data: 1 & 6 mos.	TIQ: measured marital instrumental, marital emotional & network emotional. TIIQ: measured well-being, personal feelings, marital interaction; & parenting sense of competence.	No data reported for current study.
Bull (1981) Milwaukee	Modified Gruis Questionnaire (MGQ)	Comparative survey; convenience: primiparas (n=40). Data: 3days & 1wk.	MGQ: Identify differences in maternal concerns - 1 week at home.	No data reported for current study.
Lederman, Weingarten & Lederman (1981) Michigan	Self-Evaluation Postpartum Questionnaire (PSQ)	Longitudinal; convenience: primiparas & multiparas (n=91/3 das & n=58/6 wks).	PSQ: 8 subscales consisting of 81 items rated as very much so, moderately so, somewhat so and not at all.	Reliability: Internal Consistency (Cronbach's Alpha): PSQ (.62 to .82) at 3 days and (.73 to .90) at 6 weeks.
Curry (1983) San Francisco	Tennessee Self-Concept Scale (TSCS) Chauteau Checklist (CC)	Descriptive; convenience: sample (n=20).	TSCS: measuring maternal self-concept. CC: observed maternal-infant behaviours.	Reliability: TSCS - subscale test-retest reliabilities (.60 to .90). Validity: TSCS - content criterion, and construct validity established.

Harrison & Hicks (1983) Calgary, Canada	Modified Gruis Questionnaire **(MGQ)**	Descriptive correlational; convenience: primiparas & multiparas (n=158). Data: 6wks.	MGQ: Identify factors associated with maternal concerns.	No data reported for current study.
Belsky & Rovine (1984) Pennsylvania	Semi-Structured Interview Schedule Family-Support Indices **(FSI)**	Longitudinal study; convenience - (n=72). Data: 3rd trimester, 3 & 9 mos. postpartum.	Interview data on social support and network structure. FSI: 5-point scale ranging from a great deal to very little or none.	Reliability: Internal consistency: FSI (.61 to .92).
Crnic, Greenberg, Robinson & Ragozin (1984) Seattle	Life Experience Survey **(LES)** Henderson Social Support Scale **(HSS)** Index of General Life Satisfaction **(GLS)** Satisfaction with Parenting Scale **(SWPS)** Maternal Child Rearing Attitudes **(MAS)** Bayley Scales of Infant Development **(BSID)**	Longitudinal; convenience - mother-infant pairs (n=105). Data: 1, 4, 8, 12 & 18 mos.	LES: 46 items on life stressors rated good/bad, occurred/not occurred and degree of affect (4-point scale ranging from none to great) HSS: 4-point rating scale (v. satisfied to v. dissatisfied) GLS: 5-point rating scale (v. poor to v. good) SWPS: 12-item scale MAS: No data.	Reliability: Internal consistency (Cronbach's Alpha): HSS (.69 to .50) & SWPS (.67) Observer rating subscales: Parental & Infant (.61 to .86), PA (.90), IA (.83).

Cronenwett (1984) Hanover	Social Network Inventory (SNI)	Descriptive; convenience: couples (n=54); Data: 3rd trimester.	SNI: measures network structure and type of social support.	No data reported for current study.
Cronenwett (1985a) Hanover	Social Network Inventory (SNI) Self-Evaluation Postpartum Questionnaire (PSQ)	Descriptive; convenience: couples (n=50); Data: 3rd trimester, 6wks, 5 & 8 mos.	SNI: As above. PSQ: See Lederman et al. (1981).	No data reported for current study.
Cronenwett (1985b) Hanover	Social Network Inventory (SNI)	Descriptive; convenience: couples (n=50).	SNI: As above.	No data reported for current study.
Mercer (1985) San Francisco	*Maternal Role Attainment Scales:* Feelings about baby (FAB) Gratification in the Mothering Role (GRAT) Interviewer-rated Maternal Behaviours (MABE) Self-reported Ways of Handling Irritating Babies (WHIB) *Other Scales:* Self-Image Scale Role Strain Scale Time of Internalization of the maternal role	Longitudinal, prospective; convenience: primiparas (n=242). Data: 1, 4, 8 & 12 mos.	All Likert-rating scales. Semi-structured interview data on subjects' views and feelings re. challenges, demands and resources were collected by closed and open-ended questions.	Reliability: Internal consistency: FAB (.51 to .65) & GRAT (.77 to .80) Split-half: GRAT (.93) Interrater agreement: MABE (.48 to .90) & percent agreement (.87 to .89)

Pridham & Chang (1985) Wisconsin	What Being the Parent of New Baby is Like **(WPL)** How Parents Problem-Solve Regarding The Infant **(HPPS)** Neonatal Perception Inventories **(NPI)** Degree of Bother Inventory **(DBI)**	Methodological/correlation; convenience - primiparas & multiparas (n=49). Data: 1 wk, 1 & 3 mos.	WPL: 14-item questionnaire. The scaled items rated on a 9-point graphic rating scale. HPPS: 11-item questionnaire. NPI: 6-items using a 5-point rating scale. DBI: 4-point rating scale.	Reliability: Internal consistency : WPL (Cronbach's Alpha) = .86, HPPS = .82, NPI & DBI (No data reported for current study).
Pridham, Egan, Chang & Hansen (1986) Wisconsin	Daily Health Diaries **(DHD)**	Longitudinal; convenience: (n=62) primiparas & multiparas. Data: 1-90 das.	Daily recordings of stressors & supports.	Reliability: Interrater agreement (74%). Validity: 95% agreement b/w log entries & clinical records.
Affonso (1986) San Francisco	Inventory of postpartum adaptation **(IPA)** Beck Depression Inventory **(BDI)** Pitt's Questionnaire **(PQ)**	Exploratory; convenience - primiparas & multiparas (n=80). Data: 3 & 8 wks.	IPA: 35-items rated on a 4-point scale measuring disruption. BDI: 21-items rated on a 4-point scale measuring depression. PQ: 24-items rated on a 3-point scale measuring disturbances and depression.	Reliability: Internal consistency: IPA - total scale (.89 to .90) and subscales (.47 to .65 and .41 to .67).
Golas & Parks (1986) Maryland	Knowledge Questionnaire **(KQ)** Brazelton Neonatal Behaviour Assessment Scale **(BNBAS)**	Experimental; convenience - (n=54). Data: 2 & 4 wks.	KQ: Total of 20 items. BNBAS: Items related to select behaviours of the neonate.	Reliability: KQ - Cronbach's Alpha (.49).

Walker, Crain & Thompson (1986a) Texas	Pharis Self-confidence scale (PSS) Sematic Differential Scales: Myself as Mother (SD-Self) and My Baby (SD-Baby)	Descriptive/ correlation; convenience: (n=122) primiparas & multiparas. Data: 1-3das & 4-6 wks.	PSS: perceived role attainment - 13 items rated on a 5-point scale. SD-Self and SD-Baby: maternal identity - 11 and 6 items, respectively, with a 7-point rating scale.	Reliability: Cronbach's alphas: SD-Self (.81-.85), SD-Baby (.64 to .77), PSS (>.75).. Validity: PSS: concurrent (.27 to .51).
Walker, Crain & Thompson (1986b) Texas	Pharis Self-confidence scale (PSS) Sematic Differential Scales: Myself as Mother (SD-Self) and My Baby (SD-Baby) Maternal-Infant Adaptation Scale (MIAS) Neonatal Perception Inventories - Your Baby (NPI 1 & 2).	Descriptive/ correlation; convenience - primiparas multiparas (n=124).	PSS,SD-Self & SD-BABY same as above. MAIS: demonstrated role attainment - 10 items rated on a 5-point scale. NPI 1 & 2: Perceptions of infant difficulties.	Reliability: Cronbach's alpha: MIAS (.70 - .87). Interrater agreement: MIAS=.70.
Lemmer (1987) South Dakota	Maternal Concerns Questionnaire (MCQ)	Descriptive correlational; convenience: (n=42). Data: 1 wk	MCQ: 46-items rated on a 4-point scale (no, little, moderate, much concern).	Reliability: No data reported for current study.
Majewski (1987) San Francisco	Semi Structured interview adapted from Mercer (1985) and Barnard & Eyres (1979) Transition to the Maternal Role Scale (TMRS)	Exploratory; convenience: primiparas (n=86).	TMRS: 7-items rating role transition on a 3-point rating scale (very little to a considerable amount of difficulty).	Validity: High content validity of qualitative data. Reliability: Interrater agreement: (91%). Internal consistency: Cronbach's Alpha (.71).

Rutledge & Pridham (1987) Wisconsin	Modified Total Perceived Competency Score (TPCS)	Descriptive; convenience: primiparas & multiparas (n=140). Data: Pre-hospital discharge.	TPCS: 68 items comprising four scales (infant feeding-general, bottle feeding, breastfeeding, infant care). Items were rated on a 6-point scale (not at all adequate to completely adequate).	Reliability: Internal consistency: Cronbach's alpha (.91 to .99). Validity: Convergence (.55 to .74)
Brouse (1988) Vancouver Canada	State - Trait Anxiety Inventory (STAI) Shaeffer and Mannheimer's Postnatal Research Inventory (SMPRI) - revised by Ellis and Hewat (1982).	Quasi-experimental; convenience: cont (16) & exp (15). Data: 3 das & 3 wks.	STAI: two 20-items self report scales (trait and state anxiety) SMPRI: 25-item inventory of infant care and maternal adjustment.	Reliability: STAI: Cronbach's alpha (.83 to .92). SMPRI: Cronbach's alpha (.83 for infant concerns) and (.80 for maternal concerns). Validity: STAI: construct and concurrent. SMRI: content.
Graef et. al (1988) Philadelphia	Modified Gruis Checklist (MGC)	Longitudinal; convenience: (n=32). Data: daily for 1st two wks & then twice/wk for 2 wks.	MGC: Identifies maternal concerns (physical, emotional, family) and infant concerns (feeding, physical, behaviour).	Reliability: No data reported for current study.

Fawcett, Tulman & Myers (1988) Conn.	Inventory of Functional Status After Childbirth (IFSAC)	Methodologic; convenience: (n=70).	ISFAC: 36 items (4-point scale) measures household, social & community, infant care and occupational activities as indicators of functional recovery.	Reliability: Test-retest: IFSAC - total scale (.86) and subscales (.48 to .90). Cronbach's: IFSAC (.76) - items to subscales (.56 to .98). Validity: Content (84 to 97% agreement; construct: known-groups.
Tulman & Fawcett (1988) Philadelphia	Childbirth Impact Profile, Form MQ (CIP-MQ)	Retrospective; convenience: primiparas & multiparas (n=70). Data: mean 22 mos.	CIP-MQ: 45-items measuring postpartum functional ability. It consists of 4 subscales (household, social & community, infant care and occupational activities).	Reliability & Validity: Cronbach's alpha (.79) and content validity (99% interrater agreement).
Ament (1990) Illinois	Modified Questionnaire designed by Martell and Mitchell (MMQ)	Descriptive; convenience: primiparas & multiparas (n=50). Data: 1-2hrs, evening of delivery, 24 & 48 hrs.	MMQ: Likert-type rating scale ranging from (1) SA to (4) SD consisting of 13 "taking-in" and 9 "taking-hold" items.	Validity: MMQ (content with 91% agree.) Reliability: Internal consistency: taking-in (.60 to .68) and taking-hold (.30 to .53).
Flagler (1990)	Avant's Maternal Infant Observation Scale (AMIOS) Postpartum Self-Evaluation Questionnaire (PSQ) Mutuality and Maternal Anxiety Subscales (MMA) Demographic Data Sheet	Correlation descriptive; convenience: primiparas & multiparas (n=20). Data: inhospital & 4-6 wks.	AMIOS: frequency of caregiving behaviours during infant feeding & interview of maternal feelings. PSQ: as described by Lederman et al. (1981). MMA: 20 items on maternal self feelings.	Reliability: No data reported for current study.

Tulman, Fawcett, Groblewski & Silverman (1990) Philadelphia	Inventory of Functional Status after Childbirth (IFSAC) Postpartum Self-Evaluation Questionnaire (PSQ) Infant characteristics questionnaire (ICQ)	Prospective; convenience - primiparas and multiparas (n=87/3-wks & n=97/6wks, 3 & 6 mos.	Original CIP-MQ was renamed the IFSAC: items reduced to 36 and a self-care subscale added (4-point rating scale). ICQ: 7-point likert scale to measure infant temperament. PSQ: See Lederman et al., (1981).	Reliability: Test-retest: IFSAC - total scale (.86) and subscales (.48 to .93) Internal consistency (Cronbach's): IFSAC - items to subscales (.51 to .78); and ICQ - original study (.39 to .79) and current study (.70 to .80); PSQ - original (.73 to .90) & current study (.66 to .90). Validity: ICQ (concurrent/construct); PSQ - corr b/w subscales: original (.17 -.74), current (.06 - .55).
Gardner (1991) Iowa City, IA	Rhoten Fatigue Scale (RFS) MAMA Questionnaire (MAMA) Beck Depression Inventory (BDI)	Prospective; convenience: (n=68). Data: 2-3das, 2 & 6 wks.	RFS: Fatigue 10-point likert scale ranging from not tired to total exhaustion. MAMA: 60-items, rated on a 4-point scale, generated five subscales on maternal perception of (body, somatic symptoms, relationship, and attitudes towards sex, pregnancy and baby). BDI: 21-items measuring depression, rated on a 4-point scale (not sad to so unhappy).	Reliability: Internal consistency: MAMA (81 to .95); & BDI (.74 to .83).

Pridham, Lytton, Chang & Rutledge (1991) Wisconsin - Madison	Birthing Questionnaire (BQ) What Being the Parent of a New Baby Is Like (WPL) Birthing Conditions: BC- Support and BC-Preparation Subscales Birthing Experience (BE) Capability for Infant and Self-Care (CISC)	Descriptive; convenience - primiparas & multiparas (n=108). Data: 2-3das.	BC-Support & BC-Preparation: 9 & 8 items. BE: 8 items on stress and nature of L & D, postpartum learning resources and adequacy of hospital conditions. WPL: parenting evaluation subscale (3-items). CISC: 26-items (infant feeding & care, & maternal self care).	Reliability: Internal consistency: WPL (.78), BC - Support (.90), BE Subscales (Adequacy - .77 and Usefulness .88), and CISC (.97).
Younger (1991)	The Parenting Stress Index (PSI) California Psychological Inventory (CPI) Support System Checklist (SSC) Background Information Questionnaire (BIQ)	Survey design; convenience - primiparas & multiparas infant pairs (109).	PSI: Likert type scale consisting of 101-items. CPI: measures personality with 18 scales SSC: 18-items rated from 1 to 7 (not at all to extremely) measuring helpfulness of support BIQ: 18-items tool measures stress of pregnancy, labour and delivery, prior childbearing experiences and general life events.	Reliability: Internal consistency: PSI - (.60 to .90), CPI - (.80), SSC - (.68 to .72). Test-retest: (.70 to .90) and (.50 to .85).

Chapter 3

METHODS AND PROCEDURES

A descriptive correlational, cross-sectional design was used in this study to examine perceived social support, social support networks and postpartum adaptation in a sample of primiparas women at six to eight weeks postpartum. Relationships among major variables and the effects of extraneous variables (demographic, health, knowledge and experience) on social support and psychosocial adaptation were also considered.

Population and Sample

The accessible population was all primiparas living within the St. John's to Whitbourne area. A non-probability convenience sample of sixty-five women were recruited from four physician clinics in a urban setting, St. John's and the surrounding environment, and public health nursing offices in rural communities in Conception Bay North and Conception Bay South. Study subjects had to meet the following inclusion criteria: a) primiparous mothers of healthy full-term infants, b) married or living common law, c) six to eight weeks postpartum, and d) proficient in reading and writing English. Seventy subjects meeting the study criteria were contacted. Sixty-five primiparas agreed to participate.

Setting

All participants were interviewed in their own homes. The decision was made to conduct interviews in private, when possible, in order to facilitate a freer discussion of experiences and concerns. The privacy afforded by each woman's personal space provided a conducive environment for data collection.

Ethical Considerations

The study was approved by the Human Investigation Committee, Faculty of Medicine, Memorial University of Newfoundland (see Appendix A). Approval to access subjects through community health nurses was sought from Dr. Catherine Donovan, the Regional Medical Officer at the Eastern Health Unit, the Provincial Department of Health and the Director of the Public Health Nursing Division, Eastern (see Appendix B). Approval was received to proceed with the study (see Appendix C).

Strict measures were taken to protect participants' rights. All of the women were initially contacted by family physicians or community health nurses during a clinic or home visit, approximately one week postpartum. Those who expressed an interest in participating were given the consent form (see Appendix D). The physician or nurse obtained permission to release telephone numbers to the investigator.

Written informed consent was obtained before the interview. Potential subjects were assured that their participation was entirely voluntary and they were free to withdraw from the study at any point in time. When the investigator was satisfied that the purpose of the study was fully understood, consent forms were signed.

To ensure confidentiality, only code numbers appeared on data collection forms. Further, all data were held in strict confidence and locked in a filing cabinet accessible only to the researcher. Forms will be destroyed following completion of the study.

Procedure

Data were collected over a six month period, from July to December, 1993. The investigator contacted each woman by telephone to provide a detailed description of the study, address any questions or concerns, and schedule an interview time between 6 and 8 weeks postpartum. Interviews took approximately forty-five minutes to one hour to complete.

Data Collection Instruments

Two structured instruments were used to collect data (see Appendix E & F). A demographic data sheet was also designed by the investigator for use in this study (see Appendix G).

Telephone permission was given by Dr. Regina Lederman

to use the Postpartum Self-Evaluation Questionnaire (PSQ) and Dr. Linda Cronenwett to use the Social Network Inventory (SNI). Feedback on the study's results was requested by both authors.

Social Network Inventory (SNI). Cronenwett (1984, 1985a, 1985b) used House's (1981) social support model as the theoretical framework to guide construction of the SNI. This model captures four types of support considered beneficial for families social support networks. The types of support include: a) emotional - communication of love, caring or concern, b) instrumental - direct help with household chores or money, c) informational - provides information and helps solve problems, and d) appraisal or comparison - promotes learning.

The SNI is used to collect information on network structure and perceived social support. Information is gathered on network size, members in the network and role relationship to the subject, gender, age, marital status, frequency of contact, experience with childrearing, and level of support (emotional, instrumental, information and appraisal) (see Appendix E). A longitudinal study was designed to test the psychometric properties of the SNI, and to investigate the hypothesized relationship between social network structure, perceived social

support and psychological responses to parenthood in a sample of 54 couples having their first child (Cronenwett, 1984, 1985a, 1985b).

The only information reported on psychometric properties of the SNI refers to intercorrelations between the subscales measuring levels of social support. All four categories (emotional, instrumental, information and appraisal) depicted a significant positive correlation with each other, with Pearson's r ranging from 0.21 to 0.53 in the third trimester of pregnancy (Cronenwett, 1984), and .20 to .63 at 6 weeks postpartum (Cronenwett, 1985a). Cronenwett (1985a) suggested that because scale intercorrelations were lower than those reported for the Norbeck Social Support Questionnaire and the Personal Resources Questionnaire, other instruments measuring levels of support, support dimensions, as defined by House (1981), may be more independent than those proposed by others.

Postpartum Self-Evaluation Questionnaire (PSQ). This questionnaire was developed by Lederman, Weingarten & Lederman (1981) to operationalize and quantify the factors believed to comprise the maternal adaptation construct. The PSQ is an 82-item questionnaire composed of eight subscales: a) quality of the marital relationship; b) mothers' perception of spousal support

with infant care; c) maternal satisfaction with labor and delivery; d) maternal satisfaction with life events, especially the transition to motherhood; e) confidence in her ability to cope with motherhood; f) satisfaction with her mothering role, especially infant care; and g) support from other family and friends (see Appendix F). A 4-point rating scale ranging from "not at all" to "very much so" is used to rate the items in each subscale (Lederman et al., 1981). Composite scores may also be obtained for social support using five PSQ subscales (quality of the marital relationship, perception of spousal support with infant care, satisfaction with labor and delivery, support from parents, and support from other family, friends and significant others) and maternal adjustment (satisfaction with life events, confidence in ability to cope with motherhood, and satisfaction with the mothering role) (lederman et al., 1981).

Test-retest, internal consistency and intercorrelations were used to test the psychometric properties of the PSQ. Coefficient alphas ranged from 0.62 to 0.82 at three days postpartum (n=91), and 0.73 to 0.90 at six weeks postpartum (n=58). Test-retest correlations between subscale scores at 3 days and 6 weeks ranged from 0.44 to 0.85 (Lederman et. al., 1981).

Tulman et al. (1990) reported Cronbach's alpha ranges from .66 to .90 at 6 weeks postpartum. These results suggest that the internal consistency of the subscales are moderate to high, and the lower test-retest scores may be more a function of actual changes in subjects' perceptions from 3 days to 6 weeks than instability.

Intercorrelations among the subscales at 3 days postpartum ranged from -0.04 to 0.53, and 0.17 to 0.64 at 6 weeks. Tulman et al. (1990) reported fairly comparable findings at 6 weeks (.06 to .55). Lederman et al. (1981) argued that when intercorrelation coefficients are lower than internal consistency values, support is present for scale uniqueness and using separate scales for data collection.

Demographic Data Sheet (DDS). The DDS is located in Appendix G. Data were collected on the following factors: maternal age, education level, occupation, employment status of husband, duration and frequency of husband's absences from home, type of delivery, prenatal class attendance, infant feeding method, and previous experience with infant care.

Data Analysis

The SPSSX computer program was used to analyze the data. Descriptive statistics were generated for PSQ subscales, social network and perceived social support, and personal properties. Intercorrelations were derived for each of the PSQ subscales. As well, the composite score for social support was correlated with the composite score for maternal adjustment. Finally, intercorrelations were also computed for the SNI's level of support variables.

Pearson's r was used to assess the degree of association between subscales of the PSQ and SNI. The t-test and one-way analysis of variance were used to determine the effects of personal factors (type of delivery, education, occupation, age, prenatal classes, feeding method, experience with infants, husband's employment status, and frequency of husband's absence) on social networks, perceived social support and postpartum adaptation (psychological responses). Finally, step-wise multiple regression analysis was used to identify the best predictors (social support variables or personal factors) of successful postpartum adaptation. All measures of personal factors were entered into the regression model along with the social support variables.

Chapter 4

RESULTS

The findings of this study will be presented in two major sections. The first section presents a descriptive profile of the sample in terms of demographic, network structure, levels of support and postpartum adaptation. The second section summarizes the results of tests of difference, correlation, and multiple regression analyses. Data on the intercorrelations between scales and their internal consistency are also presented.

Descriptive Profile of Sample

Demographics

All of the women comprising the sample were Caucasian and English Speaking. The majority were married or in common-in-law relationships (98.5%), living in rural towns (78.5%), and 27 years of age or older (72.4%). The mean age was 27.63 (SD±3.73), with a range from 18 to 41 years. Most subjects had some post-secondary school (89.2%), were employed (79.7%), and worked in clerical jobs (43.8%). Most husbands were employed (87.5%), and rarely away from home (75%) (see Table 2).

The majority of women had vaginal deliveries (75%), and no major prenatal, intrapartum or postpartum complications. All of the infants were full-term and

Table 2

Descriptive Statistics on Select Demographic Variables

Demographic Variables	Frequency	Percent
Marital Status		
Married	64	98.5
Unspecified	1	1.5
Maternal Age		
18-26 yrs	27	41.6
27-41 yrs	38	58.4
Post Secondary Education		
None	7	10.8
Some Univ/Voc	16	24.6
University (comp)	14	21.5
Vocational School (comp)	28	43.1
Maternal Occupation		
Unemployed	13	20.3
Clerical	28	43.8
Professional	23	35.9
Type of Delivery		
Vaginal	49	75.0
C-Section	16	25.0
Prenatal Classes		
Yes	51	78.5
No	14	21.5
Method of Feeding		
Breast	32	49.2
Bottle	33	50.8
Previous Experience With Infants		
None	17	26.1
Some	36	55.4
A lot	12	18.5
Type of Experience With Infants		
Babysitting	28	65.1
Family/Friends	15	34.9
Husband Employed		
Yes	56	87.5
No	8	12.5
Husband Away From Home Often		
Yes	16	25.0
No	48	75.0

healthy. Mothers were approximately equal in terms of infant feeding method. A significant percent of the women (73.9%) had previous experience with infants (73.9%) and attended prenatal classes (78.5%). Most infant experiences were derived from babysitting (65.1%) (see Table 2).

Social Support Network

A total of 451 members were recorded in the support network. The subjects network size ranged from 1 to 10, with a mean of 6.94. The role relationship of identified members were as follows: relatives (69.8%), co-workers (4.7%), neighbor (4.5%) and friends (21%).

Subjects averaged 24.2 contacts per week with network members. Most members had children (74.1%), and a significant percent (37.4%) of these children were under five years of age. The highest percentage of network members were female (80.1%) and married (72.3%). The mean age for members was 38, with a range from 10 to 80 years of age.

Perceived Social Support

The mean number of sources for each support type was as follows: emotional (5.3), information (4.2), comparison (3.2) and material (2.8). Women network members provided a mean frequency of 5.5 emotional, 5.0 information, 4.2 comparison and 3.8 material supports

Table 3

Sources of Types of Social Support by Role Relationship with Network Members

Type of Support	Relatives (69.8)[a]	Coworkers (4.7)[a]	Neighbours (4.5)[a]	Other friends (21)[a]
Emotional	77.8	3.2	2.3	16.6
Material	90.7	-	2.2	7.1
Information	71.0	4.3	4.7	19.9
Comparison	66.5	4.4	4.4	24.6

[a] Mean percent of each type of member in network.

versus 2.7, 2.2, 1.9 and 3.8 for men, respectively. The results suggest that women provided the most emotional support, and men the most material support.

Although relatives provided new mothers with all types of support, material (90.7%) was the most frequent. In contrast, comparison was the most frequent type of support provided by friends (24.0%), and information by neighbours (4.7%), and information and comparison were approximately equal for co-workers, 4.3% and 4.4% respectively (see Table 3).

Postpartum Adaptation

Mean scores and standard deviations for the psychosocial factors measuring postpartum adaptation are presented in Table 4. The lower the mean score for subscales, the more positive the response.

Low mean scores for labour and delivery experiences, and the mothering role suggest that study subjects were relatively satisfied with these areas. The majority also reported good relationships with their spouses, saw husbands as being interested and actively involved in infant care, and perceived overall network support to be adequate. The considerably low mean scores for perceived support from parents, and friends and family members suggest that they were highly valued. Higher mean scores for confidence in one's ability to cope with motherhood

Table 4

Means and Variance Values of PSQ Subscales[a] (N=65)

PSQ Scales	Mean	Standard Deviation
PSQ1	15.02	4.50
PSQ2	12.52	3.39
PSQ3	14.82	4.45
PSQ4	18.60	5.83
PSQ5	22.23	4.80
PSQ6	15.71	2.69
PSQ7	6.81	1.52
PSQ8	8.29	2.44
PSQ9	15.18	3.19
PSQ10	-	-
PSQ11	-	-

[a] Quality of Marital Relationship (PSQ1), Perception of Spousal Support re. Infant Care (PSQ2), Satisfaction with Labour & Delivery (PSQ3), Satisfaction with Life Events (PSQ4), Confidence in Coping with Motherhood (PSQ5), Satisfaction with Mothering Role (PSQ6), Parental Support for Mothering Role (PSQ7), Support from Family and Friends (PSQ8), All Network Support (PSQ9), Social Support Composite Score (PSQ10), and Maternal Adjustment Composite Score (PSQ11).

and satisfaction with life events indicate greater difficulties with these areas.

Personal Factors, Supports and Postpartum Adaptation

The means and variances for the perceived social support and network structure factors were examined to identify any differences on select personal factors. Psychosocial factors of the PSQ subscales were examined in a similar fashion. Analyses were also undertaken to examine correlations between social support, network structure and psychosocial factors.

Supports and Personal Factors

Tables 5 and 6 summarize test of difference findings for factors defining the network structure and types of support variables. The only variables influencing network structure were maternal age and prenatal class attendance (see Table 5). The older age group (over 26 years) reported a significantly greater number of network members than the younger age group (less than or equal to 26 years of age). Prenatal class attenders had a significantly lower percentage of females in their network structure and weekly contacts with network members than non-attenders.

Maternal age and occupation, and prenatal class attendance had a significant effect on type of support

Table 5

Social Network Structure and Type of Support by Maternal Age, Delivery Type, Prenatal Classes, Feeding Method (T-test Results)

	Demographic Variables			
	Maternal Age	Delivery Type	Prenatal Classes	Feeding Method
Structure				
Size	t= 2.18** (p= .034)	t= 1.05 (p= .30)	t= 0.57 (p=.58)	t= 0.28 (p= .78)
% Females	t= 0.79 (p= .43)	t=-0.60 (p= .55)	t=-1.96* (p= .062)	t=-0.23 (p= .82)
% Kin	t= 0.16 (p= .87)	t=-0.39 (p= .70)	t= 0.37 (p= .72)	t=-0.46 (p= .65)
% Weekly Contact	t= 0.85 (p= .40)	t= 0.91 (p= .37)	t=-2.27** (p= .032)	t= 0.40 (p= .69)
Type of Support				
Emotional	t=-1.67* (p= .101)	t=-0.09 (p= .93)	t= 1.08 (p= .29)	t= 0.84 (p= .40)
Material	t= 0.38 (p= .71)	t= 0.76 (p= .46)	t=-0.20 (p= .84)	t=-0.37 (p= .71)
Information	t=-2.21** (p= .031)	t= 1.15 (p= .26)	t= 2.10** (p= .05)	t=-0.29 (p= .77)
Comparison	t=-1.32 (p= .19)	t= 1.25 (p= .22)	t= 1.92* (p= .07)	t=-0.27 (p= .79)

* = p < .10, ** = p < .05, *** = p < .01

Table 6

Type of Social Support and Network Structure by Occupation, Education, and Previous Infant Experience (ANOVA Results)

	Demographic Variables		
	Maternal Occupation	Post-Secondary Education	Previous Infant Experience
Structure			
Size	f= .835 (p=.44)	f= 1.05 (p=.36)	f= .819 (p=.45)
Females	f= .39 (p=.68)	f= .19 (p=.83)	f= .17 (p=.85)
Kin	f= .78 (p=.46)	f= .33 (p=.72)	f= .57 (p=.57)
Weekly Contact	f= .50 (p=.61)	f=1.40 (p=.25)	f= .04 (p=.96)
Type of Support			
Emotional	f= .43 (p=.65)	f=1.00 (p=.14)	f= .06 (p=.94)
Material	f= .51 (p=.60)	f=2.24 (p=.12)	f= .10 (p=.90)
Information	f=3.02* (p=.06)	f=2.14 (p=.13)	f= .65 (p=.52)
Comparison	f=3.01* (p=.06)	f=1.03 (p=.36)	f= .83 (p=.44)

* = p < .10, ** = p < .05, *** = p < .01

(see Tables 5 & 6). Older women perceived significantly more emotional, information and comparison support from network members than younger women. Prenatal class attenders also felt that they had more information and comparison support than non-attenders. In addition, subjects who had professional and clerical jobs tended to identify significantly more information and comparison support than those who were unemployed.

Postpartum Adaptation and Personal Factors

Tables 7, 8 and 9 summarize test of difference results for the postpartum adaptation data. Variables influencing subject scores on certain PSQ subscales included: type of delivery, prenatal classes, feeding method, maternal education and occupation, and husband's employment status.

Older women were generally less satisfied with the mothering role than younger women. Women who experienced caesarean births reported a significantly greater degree of husband interest and involvement in infant care and parental support than those having vaginal births. Prenatal class attenders perceived significantly less support from parents and the total network structure than non-attenders (see Table 7). Breast feeding mothers were significantly more satisfied with labour and delivery than bottle feeders (see Table 8).

Table 7

Postpartum Self-Evaluation Questionnaire (PSQ)[a] Subscale Scores by Maternal Age, Delivery Type and Prenatal Classes (T-test Results)

	Demographic Variables		
	Maternal Age	Delivery Type	Prenatal Classes
PSQ Scales			
PSQ1	t= 1.01 (p= .321)	t= .55 (p= .588)	t=1.35 (p= .182)
PSQ2	t= .97 (p= .335)	t=1.76* (p= .083)	t=-.32 (p= .752)
PSQ3	t=-1.33 (p= .183)	t= .20 (p= .845)	t= .83 (p= .413)
PSQ4	t= .72 (p= .473)	t=-.62 (p= .542)	t= .46 (p= .647)
PSQ5	t= .64 (p= .527)	t=-.23 (p= .817)	t=1.00 (p= .329)
PSQ6	t=-1.74* (p= .087)	t=1.47 (p= .150)	t=1.21 (p= .236)
PSQ7	t=- .32 (p= .750)	t=1.83* (p= .073)	t=3.33*** (p= .002)
PSQ8	t=-1.43 (p= .159)	t=-.33 (p= .743)	t= .88 (p= .389)
PSQ9	t=-1.23 (p= .223)	t= .32 (p= .748)	t=1.96* (p= .059)

* = p < .10, ** = p < .05, *** = p < .01

[a] Quality of Marital Relationship (PSQ1), Perception of Spousal Support re. Infant Care (PSQ2), Satisfaction with Labour & Delivery (PSQ3), Satisfaction with Life Events (PSQ4), Confidence in Coping with Motherhood (PSQ5), Satisfaction with Mothering Role (PSQ6), Parental Support for Mothering Role (PSQ7), Support from Family and Friends (PSQ8), and All Network Support (PSQ9).

Table 8

PSQ[a] Subscales by Feeding Method, Husband Employment, and Husband Absences (T-test Results)

	Demographic Variables		
	Feeding Method	Husband's Employment	Husband's Absences
PSQ1	t= -.31 (p= .760)	t=-1.23 (p= .263)	t= -.22 (p= .829)
PSQ2	t= -.22 (p= .830)	t= -.50 (p= .629)	t=-.57 (p= .572)
PSQ3	t=-2.46** (p= .017)	t= -.33 (p= .750)	t=1.33 (p= .197)
PSQ4	t= -.42 (p= .672)	t=-1.78 (p= .112)	t=-.08 (p= .935)
PSQ5	t= -.90 (p= .373)	t= -.42 (p= .683)	t= .36 (p= .719)
PSQ6	t= -.43 (p= .672)	t= .54 (p= .601)	t= .49 (p= .628)
PSQ7	t= -.18 (p= .858)	t= -.07 (p= .945)	t= .28 (p= .781)
PSQ8	t= -.85 (p= .398)	t= 3.19*** (p= .005)	t= .40 (p= .690)
PSQ9	t= -.74 (p= .460)	t= 2.26** (p= .037)	t= .30 (p= .763)

* = p < .10, ** = p < .05, *** = p < .01

[a] Quality of Marital Relationship (PSQ1), Perception of Spousal Support re. Infant Care (PSQ2), Satisfaction with Labour & Delivery (PSQ3), Satisfaction with Life Events (PSQ4), Confidence in Coping with Motherhood (PSQ5), Satisfaction with Mothering Role (PSQ6), Parental Support for Mothering Role (PSQ7), Support from Family and Friends (PSQ8), and All Network Support (PSQ9).

Table 9

PSQ[a] Scales by Education, Maternal Occupation, and Previous Infant Experience (ANOVA Results)

	Demographic Variables		
	Post-Secondary Education	Maternal Occupation	Previous Infant Experience
PSQ1	f= .451 (p= .64)	f=1.23 (p= .30)	f=1.48 (p= .24)
PSQ2	f= .293 (p= .75)	f= .270 (p= .76)	f=2.66* (p= .08)
PSQ3	f= .050 (p= .95)	f=1.99 (p= .15)	f= .071 (p= .93)
PSQ4	f= .523 (p= .60)	f=2.84* (p= .06)	f= .026 (p= .97)
PSQ5	f=4.28** (p= .02)	f=2.26 (p= .11)	f= .826 (p= .44)
PSQ6	f=1.88 (p= .16)	f=1.43 (p= .25)	f= .556 (p= .58)
PSQ7	f= .736 (p= .48)	f=1.90 (p= .16)	f=2.04 (p= .14)
PSQ8	f=1.39 (p= .26)	f=1.31 (p= .28)	f= .488 (p= .62)
PSQ9	f= .209 (p= .81)	f=2.32 (p= .11)	f= .722 (p= .49)

* = $p < .10$, ** = $p < .05$, *** = $p < .01$

[a] Quality of Marital Relationship (PSQ1), Perception of Spousal Support re. Infant Care (PSQ2), Satisfaction with Labour & Delivery (PSQ3), Satisfaction with Life Events (PSQ4), Confidence in Coping with Motherhood (PSQ5), Satisfaction with Mothering Role (PSQ6), Parental Support for Mothering Role (PSQ7), Support from Family and Friends (PSQ8), and All Network Support (PSQ9).

Women with unemployed husbands were significantly more satisfied with the support received from friends and other family members, and their total network support system than those whose husband's were employed (see Table 8). Subjects with limited or no previous experience with infant care reported a significantly greater degree of husband involvement than those with extensive experience. Women working in professional occupations were also significantly more likely to report greater satisfaction with life events than either the unemployed or clerical groups. However, women with no post-secondary education had significantly more confidence in their abilities to cope with motherhood than those who either completed or had some post-secondary education (see Table 9).

Correlates of Postpartum Adaptation

Tables 10 and 11 summarize the correlational data between psychosocial variables (PSQ subscales) and Social Network Inventory (SNI). Material and comparison support, and the percentage of kin, male kin, female kin and females in the network structure were the only variables depicting a statistically significant relationship with the PSQ subscale scores. The reader is reminded that **low scores** on the PSQ subscales is indicative of a more positive response.

Table 10

Correlations Among PSQ[a] Subscales, Type of Support, and Network Structure Variables (Pearson's r)

	PSQ Subscales				
	PSQ1	PSQ2	PSQ3	PSQ4	PSQ5
Type of Support					
Emotional	-.22	-.15	-.10	-.05	-.09
Material	-.17	-.04	.01	.32*	.09
Information	-.11	.06	.05	.04	.01
Comparison	-.27*	-.09	.03	-.02	-.09
Structure					
Size	-.10	-.03	.01	-.09	-.02
Frequency of Contact	.06	.05	.13	.07	.14
Percent Kin	.18	.07	-.04	.28*	.02
Female Frequency	-.03	-.02	-.16	-.17	-.03
Male Frequency	-.14	-.04	.19	.09	.01
Percent Females	.17	.09	.09	-.16	-.03
Percent Male Kin	-.26*	-.12	.20	.03	.07
Percent Female Kin	-.09	-.02	-.03	-.28*	.04

* = $p < .10$, ** = $p < .05$

[a] Quality of Marital Relationship (PSQ1), Perception of Spousal Support re. Infant Care (PSQ2), Satisfaction with Labour & Delivery (PSQ3), Satisfaction with Life Events (PSQ4) and Confidence in Coping with Motherhood (PSQ5).

Table 11

Correlations Among PSQ[a] Subscales, Type of Support and Network Structure Variables (Pearson's r) (Continued)

	PSQ Subscales			
	PSQ6	PSQ7	PSQ8	PSQ9
Type of Support				
Emotional	-.05	-.15	-.13	-.18
Material	-.03	-.13	-.04	-.12
Information	.08	-.04	-.12	-.12
Comparison	-.03	-.07	-.19	-.21
Structure				
Size	.07	-.18	-.12	-.17
Frequency of Contact	.02	-.06	-.17	-.14
Percent Kin	-.08	.09	-.01	.05
Female Frequency	.06	-.24	-.17	-.24
Male Frequency	.04	.03	.03	.05
Percent Females	-.03	-.27*	-.07	-.19
Percent Male Kin	.08	.17	.08	.14
Percent Female Kin	.09	-.09	.02	-.04

* = $p < .10$, ** = $p < .05$

[a] Satisfaction with Mothering Role (PSQ6), Parental Support for Mothering Role (PSQ7), Support from Family and Friends (PSQ8), and All Network Support (PSQ9).

In terms of type of supports, material support demonstrated a significant positive relationship with satisfaction with life events and circumstances (see Table 10). The data suggest that women with low material support are more satisfied with life events. Conversely, comparison support depicted a significant negative relationship with perceived quality of relationship with husband (see Table 10). Subjects with high comparison support (comparing ideas and feelings from people in similar life events) were more likely to be satisfied with quality of relationships with husbands.

For network structure, percent kin had a significant positive relationship with life satisfaction, percent male kin a significant negative correlation with quality of marital relationship, percent female kin a significant negative correlation with life satisfaction (see Table 10), and percent females depicted a significant negative correlation with support for the maternal role from parents (see Table 11). These findings suggest that a high percent of network kin members was associated with less satisfaction with life events and circumstances. Women who identified more male kin in their network were more likely to perceive a higher quality marital relationship. As well, those who identified a higher percent of female kin members were more likely to be

satisfied with life events. Finally, as the percent of females in the social system increased, perceived parental support for the mothering role increased.

Predictors of Postpartum Adaptation

Stepwise multiple regression analysis was used to identify significant structure, support and demographic predictors of postpartum adaptation. All PSQ subscales, the social support composite score and maternal adaptation composite score were regressed on the following independent variables: types of support (emotional, material, information and comparison), network structure (percent kin, percent males and females, percent male and female kin, and frequency of contact with members), demographic variables (maternal age, post-secondary education, and occupation, and husband 's employment status and frequency of absences away from home), health variables (type of delivery, method of feeding) and knowledge and experience (previous experience with infants and prenatal classes).

The regression analysis results are summarized in Table 12. Comparison support, husband's employment status, prenatal classes and percent of female kin in the network structure surfaced as significant predictors of quality of relationship with husband. These variables combined to explain 27.4% of the variance in quality of marital

Table 12

Stepwise Regression Analysis Results of Predictors of Scores on the PSQ Subscales

Ind Var	Dep Var	Mult R	R^2	R^2 Adjusted	F Value	P
Compare	PSQ1	0.2948	0.087	0.071	5.62	.021
Husband	PSQ1	0.3866	0.149	0.120	5.10	.009
Classes	PSQ1	0.4601	0.212	0.170	5.10	.003
Female	PSQ1	0.5236	0.274	0.222	5.29	.001
Feed	PSQ3	0.2855	0.0815	0.066	5.237	.026
Husband	PSQ4	0.2815	0.0793	0.064	5.164	.027
Material	PSQ4	0.3755	0.1410	0.112	4.443	.011
Education	PSQ5	0.3083	0.0950	0.080	6.405	.014
Classes	PSQ7	0.2684	0.0721	0.056	4.852	.037
Feed	PSQ7	0.3962	0.1570	0.128	5.400	.007
Emotional	PSQ10	0.2702	0.0730	0.0564	4.409	.040

Note: 1) compare = comparison support, husband = husband employment, classes = prenatal classes, female = percent of female kin, feed = feeding method, material = material support, education = post-secondary education, emotional = emotional support, 2) PSQ1 = Quality of Marital Relationship, PSQ3 = Satisfaction with Labour & Delivery, PSQ4 = Satisfaction with Life Events, PSQ5 = Ability to Cope with Motherhood, PSQ7 = Parental Support for Mothering Role, and PSQ10 = Social Support Composite Score.

relationship. The findings suggest that mothers were more likely to report higher quality relationships with their husbands if they had more comparison support, did not attend prenatal classes, their husbands were actively employed, and they had a greater percentage of female relatives in their network structure.

Only feeding method surfaced as a significant predictor of satisfaction with labour and delivery experience. Feeding method explained 8.2% of the variance in maternal satisfaction with labour and delivery. Breastfeeding mothers indicated more satisfaction with the labour and delivery experience than those who bottle fed their infants.

Two variables emerged as significant predictors of satisfaction with life events. Husband's employment status and material support (direct help through money/gifts or help with household chores) combined to explain 14.1% of the observed variance in maternal satisfaction with life events. Mothers were more likely to report greater satisfaction with life events if their husbands were employed and they had less access to material support.

Post-secondary education was the only variable to be significantly correlated with perceptions of ability to cope with motherhood. It explained 9.5% of the variance

in perceived ability to cope. Study subjects who had no post-secondary education expressed more confidence in their ability to cope with motherhood.

Prenatal classes and feeding method of choice surfaced as significant predictors of parental support for the mothering role. These variables combined to explain 15.7% of the variance in perceived support from parents. Mothers who did not attend prenatal classes and breast fed their infants were more likely to report greater parental support.

Emotional support (communication of love, caring, trust and concern) surfaced as a significant predictor of the social support composite score. It explained 7.3% of the variance in the total social score. Women reporting high emotional support also were more likely to indicate that they had high social support.

No predictor variables entered into the regression equation for involvement of husband in infant care, satisfaction with mothering role, support from family and friends, all network support, and maternal adjustment composite score.

Scale Intercorrelations and Reliability

Social supports

Intercorrelation scores among emotional, material, information, and comparison support ranged from 0.22 to

Table 13

Intercorrelation Results For Types of Support

	Types of Support		
	Material	Information	Comparison
Support			
Emotional	.52**	.58**	.53**
Material		.22	.38**
Information			.77**

* = p < .05, ** = p < .01

0.77 (see Table 12). The positive results suggest that women who perceive high emotional support (love, caring, concern) are significantly more likely to perceive high material support (money, gifts, help and household chores), information support (sharing information which help to solve problems, related to events such as motherhood), and comparison support (sharing ideas, feelings, concerns with someone in a similar situation). Alternatively, 27% of the observed variability in emotional support is associated with material support, 33.6% with information support, and 28.1% with comparison support.

The significant positive relationship between material and comparison support indicates that those who perceived a high degree of help were more likely to feel that they had more people to share ideas, feelings and concerns related to motherhood. However, the percent of shared variability among these two types of support was only 14.4%. Finally, the positive correlation between information support and comparison support suggests that those who felt they had high information support were also more likely to perceive high comparison support. The shared variability between information and comparison support is fairly strong (59.3%).

Table 14

Intercorrelations Among the Postpartum Self-Evaluation Questionnaire (PSQ)[a] Subscales

	PSQ2	PSQ3	PSQ4	PSQ5	PSQ6	PSQ7	PSQ8	PSQ9
PSQ1	.42**	.04	.29*	.27*	.05	.09	.23	.21
PSQ2		-.01	.26*	.09	.14	.08	.20	.19
PSQ3			.42**	.48**	.47**	.64**	.40**	.54**
PSQ4				.50**	.37**	.30*	.26**	.31*
PSQ5					.60**	.43**	.47**	.52**
PSQ6						.49**	.41**	.49**
PSQ7							.49**	.73**
PSQ8								.95**

* = $p < .05$, ** = $p < .01$

[a] Quality of Marital Relationship (PSQ1), Perception of Spousal Support re. Infant Care (PSQ2), Satisfaction with Labour & Delivery (PSQ3), Satisfaction with Life Events (PSQ4), Confidence in Coping with Motherhood (PSQ5), Satisfaction with Mothering Role (PSQ6), Parental Support for Mothering Role (PSQ7), Support from Family and Friends (PSQ8), All Network Support (PSQ9), Social Support Composite Score (PSQ10), and Maternal Adjustment Composite Score (PSQ11).

Postpartum Adaptation

Pearson's r was also used to calculate scale intercorrelations for the PSQ (see Table 14). Correlation values ranged from -0.01 to 0.64 on the individual subscales, excluding PSQ9 which was constructed from combining PSQ7 and PSQ8. There was a significant positive relationship between quality of marital relationship and perceived spousal support for infant care, satisfaction with life events, and confidence in coping with motherhood; and, husband's involvement in infant care was positively associated with satisfaction with life events.

Additional significant positive relationships were as follows: a) labour and delivery satisfaction with satisfaction with life events, confidence in coping with motherhood, satisfaction with the mothering role, parental support, support from family and friends support, and all network support; b) satisfaction with life events with confidence in coping with motherhood, satisfaction with mothering role, parental support, family and friends support, and all network support; c) confidence in coping with motherhood with satisfaction with the mothering role, parental support, support from family and friends, and all network support; d) satisfaction with the mothering role with parental

support, support from family and friends, and all network support; e) parental support with support from family and friends, and all network support; and, f) support from family and friends with all network support.

Cronbach's alpha was also used to test the internal consistency of the PSQ subscales (see Table 15). Alpha coefficient values ranged from 0.652 to 0.892. All of the scales demonstrate moderate to high internal consistency. As well, the social support index (0.852) and maternal adjustment index (0.873) coefficient values indicate that both indices had high internal consistency.

Summary

Study results supported expected findings based on the literature review in some instances and contradicted others. The large majority of network members were female relatives or friends with children of their own. Despite being given the opportunity to list up to 10 network members, only 23.1% gave the upper limit. Further, most subjects only averaged 24.8 contacts per week with network members.

Most network members provided emotional and information support to the mothers. Relatives provided the most emotional support, and neighbours the least. All major groupings provided approximately equal amounts of information support. Relatives also provided the

Table 15

Internal Consistency Values of PSQ Subscales[a] (N=65)

PSQ Scales	Cronbach's Alpha
PSQ1	0.892
PSQ2	0.814
PSQ3	0.757
PSQ4	0.812
PSQ5	0.793
PSQ6	0.664
PSQ7	0.652
PSQ8	0.731
PSQ9	0.735
PSQ10	0.852
PSQ11	0.873

[a] Quality of Marital Relationship (PSQ1), Perception of Spousal Support re. Infant Care (PSQ2), Satisfaction with Labour & Delivery (PSQ3), Satisfaction with Life Events (PSQ4), Confidence in Coping with Motherhood (PSQ5), Satisfaction with Mothering Role (PSQ6), Parental Support for Mothering Role (PSQ7), Support from Family and Friends (PSQ8), All Network Support (PSQ9), Social Support Composite Score (PSQ10), and Maternal Adjustment Composite Score (PSQ11).

greatest amount of instrumental or material support, followed by neighbors and friends. Co-workers failed to provide any material support. With regards to appraisal or comparison support, the greatest amount was provided by friends followed by comparable percentages from neighbours and relatives.

The relatively low mean scores for each of the PSQ subscales measuring psychosocial adaptation indicated that most study subjects rated each component positively. The quality of relationships with husbands, husbands involvement with infant care, satisfaction with labour and delivery, satisfaction with motherhood, and support from parents, family and friends as perceived by the mothers were all fairly high. What is noteworthy, especially for the purposes of this study, is the perception of significant support for the maternal role from parents, family and friends. Further, satisfaction with life events and confidence in ones ability to cope with motherhood surfaced as areas probably requiring greater assistance.

The PSQ subscales also demonstrated high internal consistency. The subscales also depicted a significantly low to moderate positive relationship with each other, with the exception of quality of marital relationship and degree of husband's involvement in infant care.

The effects of personal factors on postpartum adaptation, as measured by psychosocial factors in the PSQ subscales, social network and perceived social support varied. All personal factors, except frequency of husband's absences from home, had a significant effect on at least one of the PSQ subscales. However, only maternal age and prenatal class attendance demonstrated any significant effect on network structure; and, maternal age, maternal occupation and prenatal class attendance on types of support provided by members of the network.

Results of the relationships among network structure, types of support and postpartum adaptation depicted low and non-significant correlations for the most part. Only material and comparison support correlated significantly with any of the PSQ scales. The resulting correlation coefficient values were also low. Additionally, the only network structure variables that revealed a significant correlation with the PSQ scales were percent kin, percent female members, percent female kin and percent male kin. Again the resulting coefficient values were low.

Type of support, network structure and personal factors formed the independent variables, and individual PSQ subscale scores the dependent variables in step-wise multiple regression analysis. Comparison, material and

emotional support, husband's employment status, maternal education level, percent females in network, prenatal classes and feeding method surfaced as significant predictors of psychosocial factors in postpartum adaptation. The effects of any single personal factor, network structure or perceived social support variables on different aspects of postpartum adaptation were comparatively low.

However, the highest variance accounted for in any one of the subscales was on perceived quality of the marital relationship. In this instance, comparison support, husband's employment, prenatal classes and percent of female kin combined to explain only 27% of the variance, Obviously a large portion of the factors influencing postpartum adaptation were not accounted for in this study.

Chapter 5

DISCUSSION, CONCLUSIONS, LIMITATIONS AND IMPLICATIONS

The material in this chapter is divided into five sections. The first section presents an overview of the conceptual framework and objectives. The second section discusses the results. The third section outlines the limitations of the study. The fourth section presents the conclusions drawn from the study findings. The final section discusses the implications for nursing practice, education and research.

Conceptual Framework and Objectives

Cronenwett's (1985a, 1985b) model on the interdependent relationships among network structure, perceived social support and psychological responses to parenthood provided the conceptual framework for this study. The hypothesized chain-linked responses among the above variables is believed to be tempered by personal or conditional factors that an individual brings to a particular situation (eg., birth of a child). The proposed relationships as summarized in the model are as follows: Psychological responses of parenthood will influence and be influenced by perceived social support and properties of the social network. As well, both aspects of social support will influence each other and be influenced by properties of the individual.

This study was designed to test Cronenwett's (1985a, 1985b) model at 6 to 8 weeks postpartum in a sample of first-time mothers. As in previous empirical work by Cronenwett (1984, 1985a, 1985b), perceived social support and properties of the social network were measured by the Social Network Inventory (SNI), and psychological responses to parenthood by the Postpartum Self-Evaluation Questionnaire (PSQ). The objectives of the current study were to: (1) describe first-time mothers' social network structure, perceived social support, and postpartum adaptation (psychological responses to motherhood), (2) examine relationships among network structure, perceived social support, and postpartum adaptation, and, (3) determine if select personal factors (maternal age, education and occupation, husband's employment status and frequency of absences from the home environment, type of delivery and method of infant feeding, parity and prenatal classes) influenced network structure, perceived social support and postpartum adaptation.

Discussion of Results

The results are divided according to the major factors in Cronenwett's (1985a) model. Personal factors are discussed first, network structure and perceived social supports second, and finally postpartum adaptation.

Personal Factors

All of the women in the sample had completed high school, and most had some postsecondary education. Subjects average years of schooling compares favourably with samples in other studies reporting on similar psychological aspects of postpartum adaptation (Crinic et al., 1984; Cronenwett, 1984, 1985a, 1985b; Curry, 1984; Flagler, 1990; Pridham & Chang, 1985; Pridham et al., 1991; Rutledge & Pridham, 1987). Employment and marital status, as well as a mean age of 27.6, were also comparable to samples in other studies (Crinic et al., 1984; Cronenwett 1984, 1985a, 1985b; Flagler, 1990; Lederman et al. 1981; Pridham et al., 1991; Rutledge & Pridham, 1987).

Most study subjects also had previous experience with infants and attended prenatal classes. This sample was comparable to other study subjects on these characteristics (Curry, 1984; Lederman et al., 1981; Pridham et al., 1991; Rutledge & Pridham, 1987). Further, most subjects had vaginal deliveries. The sample compares favourably with subjects in studies by Cronenwett (1984, 1985a, 1985b) and Rutledge and Pridham (1987).

Network Structure and Type of Supports

Network Structure

Although the current study's findings on primiparas' network structure have important similarities to previous research findings, it deviates from them in several significant ways. The mean percent of people in different role relationships and the number married with children in this study were comparable to Cronenwett's (1985a) findings. The only noteworthy difference between the two studies was in the percent of co-workers and neighbours, 4.7% and 4.5%, respectively, versus 8% and 2% in Cronenwett's (1985a) study. 69.8% versus 66%, respectively.

The mean network size for subjects in Cronenwett's (1984) study was 8.5 versus 6.94 in the current study. Second, Cronenwett's (1984) findings on the average number of contacts with network members per week (11.8) and percent of females (55%) were quite different from this study's findings, 24.2 and 80.1%, respectively. Third, most members had children (74.1%) but only 37.4% were under five years of age. This contrasts with Cronenwett (1984) results, 64% and 16%, respectively.

Perceived Social Support

The average level of support from network members depicted the following frequency: emotional (5.3%),

material (2.8%), information (4.2%) and comparison (3.2%). These results are slightly different from Cronenwett's (1985a) findings on information (4.7%) and material (3.3) but significantly different on emotional (7.1) and comparison (4.7%).

The frequency of type of support provided by network members depict significant differences. However, they can be explained, in part, by the different network structures, especially the higher number of weekly contacts and percent females. Network female members for postpartum mothers have been consistently perceived as giving more of each type of social support (Cronenwett, 1984, 1985a, 1985b; Majewski, 1987).

Study subjects indicated that although relatives gave the highest percentage of all types of support, they provided more emotional and material support than other types. These findings concur with Cronenwett (1984). Friends provided more comparison support than any other type of support. Similar findings were reported by Cronenwett (1984). Neighbours and co-workers were approximately equal in terms of informational and comparison support. In contrast, Cronenwett (1984) found that co-workers provided significantly more information and comparison support than neighbours. As well, while co-workers provided more informational than comparison

support, neighbours provided more comparison than information support (Cronenwett, 1984).

Impact of Personal Factors

A number of puzzling findings surfaced when network structure and types of support variables were examined for differences based personal factors. Women who attended prenatal classes had significantly less female network members and weekly contacts with members, but significantly more informational and comparison support, than non-attenders. This outcome could possibly be an artifact of the study's inclusion of mothers only as opposed to the use of couples. According to previous research, females tend to identify more women in their network and males more men, especially in the co-worker, neighbor and friend groups (Cronenwett, 1984, 1985a & 1985b).

Although the results from other studies suggest that increased education is associated with less frequent weekly contacts and lower access to instrumental supports (Cronenwett, 1984), the current study did not support these findings. Results also indicated that maternal age had a significant effect on emotional and informational support, and size of network structure. Older subjects had more emotional and informational support, and a greater number of network members than younger subjects.

Cronenwett's findings failed to support the variant effects of age.

Reliability and Validity

Intercorrelations between types of support compare favourably with Cronenwett's (1984) findings. The intercorrelation values ranged from 0.22 to 0.77 in the current study compared to the 0.20 to the 0.63 range reported in Cronenwett's study. One important difference must be noted, however. The correlation between information and material support was not found to be statistically significant in this study but it was by Cronenwett (1984).

Postpartum Adaptation

Psychological responses to parenthood, the outcome variable in Cronenwett's model, was the concept used to address postpartum adaptation in this study. Subscale scores on the Postpartum Self-Evaluation Questionnaire (PSQ) served as empirical measures for psychological factors. The low mean scores for quality of relationship with husband, perception of husband's participation in child care, mother's gratification with labour and delivery experience, satisfaction with motherhood and infant care, and support for the maternal role from parents, friends and other family members indicates that study subjects perceived these areas positively.

Conversely, the higher mean scores for satisfaction with life situation and circumstances and confidence in ones ability to cope with tasks of motherhood suggest these women needed more assistance to adjust in these areas. Similar results were found by Lederman et al. (1981) at 6 weeks postpartum, with one exception, quality of marital relationship had a lower mean score.

Cronenwett (1985a) also reported PSQ subscale scores in her study of primiparous couples at 6 weeks postpartum. Cronenwett reversed scored items in the subscales so that higher scores were reflective of more positive responses. Comparatively, the mean scores for mothers on the subscales concur with this study's findings and Lederman et al.'s (1981) findings. There were two important differences, however. Mothers reported more confidence in their ability to cope with the tasks of motherhood and less support from parents, family and friends than in either this study or Lederman et al.'s (1981).

Impact of Personal Factors

The effects of demographic factors (maternal age, education and occupation, employment status of husband, duration and frequency of husband's absences from home) were, for the most part, scale specific. Maternal age was only found to affect satisfaction with the mothering

role. Study findings suggest that older women (27 to 41 years) appeared to be less satisfied with the mothering role than younger women (18 to 26 years). Mercer (1985) found that although gratification with the maternal role increased for all age groups between 1 and 4 months postpartum, mean scores for older women were significantly lower than those for younger women at each time period. Cronenwett's (1985a, 1985b) did not find any age-related differences.

Maternal age has been hypothesized to have a positive impact on new mother's confidence in their ability to cope with motherhood (Mercer, 1981; Rubin, 1984; Tribotti et al., 1988). Study findings failed to detect a significant difference between age groups on maternal confidence. Cronenwett (1985a, 1985b), Pridham and Chang (1985), Pridham et al. (1991), Rutledge and Pridham (1987), and Walker et al. (1986a) had comparable findings.

In this study, post-secondary education only affected perceived confidence with the ability to cope with tasks of motherhood. Women with no post-secondary education reported more confidence in their ability to cope with motherhood than those with post-secondary education. Pridham et al. (1991) also found that higher educated women rated parenting and infant and self care

capabilities lower than those with less education. Contradictory findings were reported by Rutledge and Pridham (1987) and Walker et al. (1986a).

The employment status of husbands had a significant affect on a number of psychological factors assessed in this study. Women whose husbands were employed perceived were significantly more satisfied with the quality of the marital relationship, support from family and friends, and life situation and circumstances. Maternal occupation also influenced satisfaction with the life situation and circumstance. That is, women who worked in professional occupations reported greater satisfaction than those in other occupations. No studies were identified from the literature that compared the effects of maternal occupation or employment status of husbands on the above factors.

Knowledge and experience factors (prenatal education, previous experience with infants, feeding method) also demonstrated variable effects on psychological responses to different areas. Previous experience with infant care had a significant impact on mothers perceptions of husband's involvement in infant care, and the amount of parental and total network support available. Lederman et al. (1981) only found a significant difference on mothers perceptions of husband's involvement in infant

care at 6 weeks postpartum. Previous experience did not significantly affect either perceived ability to cope with maternal tasks or satisfaction with the mothering role as suggested by other study findings (Mercer, 1985; Pridham et al., 1991; Rubin, 1984; Rutledge & Pridham, 1987). Curry (1983) also found that women who classified themselves as easy adapters in the postpartum period had significantly more previous experience with infants than those who classified themselves as difficult adapters.

Prenatal class attenders perceived less support from parents and total network members, and higher quality relationships with their husbands. Conversely, Lederman et al. (1981) found that women who attended prenatal classes had more support from friends and relatives. However, Lederman et al., (1981) did find that women who attended prenatal classes reported an higher quality marital relationship than non-attenders.

Mothers who breast-fed their infants reported greater satisfaction with labor and delivery. Infant feeding method did not affect maternal perceptions of competency as suggested by Rutledge and Pridham (1987). However, in a later study, Pridham et al. (1991) failed to find support for the hypothesized effects of infant feeding plan on either evaluation of parenting or care capabilities.

Type of delivery influenced subject scores on perceptions of husband involvement in infant care and support from parents. Women who had caesarean births reported more husband involvement in infant care and greater amounts of parental support. Type of delivery failed to affect any other factors. Rutledge and Pridham (1987) findings also failed to detect a significant difference on perceived maternal competency in infant care in terms of delivery type. However, some studies did show that women who had vaginal deliveries tend to have less concerns about their ability to cope with infant care than those who had cesarean births (Bull, 1981; Harrison & Hicks, 1983; Mercer, 1985; Tribotti et al., 1988).

Impact of Supports

Increased comparison support and percent male kin in the network were associated with perceived higher quality relationships with husbands. Cronenwett's (1985a) findings failed to detect a similar relationship.

Further, as the percent of kin and amount of material support in the mother's social network increased, satisfaction with life events decreased. Conversely, as the percent of female kin increased, satisfaction with life events increased. The significant correlation between percent of kin, material support and percent of

female kin and satisfaction with life events was not supported by (Cronenwett, 1985a). However, Crinic et al.'s (1984) findings demonstrated that the increased levels of spouse and community support were significantly correlated with greater satisfaction with life events.

Study findings failed to identify a significant relationship between either network structure or level of support and satisfaction with motherhood as demonstrated in other studies. Crinic found that greater husband and community supports were significantly correlated with increased satisfaction with parenting. Cronenwett (1985a) also found that the amount of emotional support and size of the network structure had a positive effect on perceived satisfaction with the maternal role.

No types of support and only one structure variable correlated with parental support. As the percentage of females increased in the mothers' social network, perceived parental support for the mothering role increased. Further, no structure or types of support variables significantly correlated with either family and friends or total network support. However, emotional support was found to be a significant predictor of the composite social support score.

Study findings evidence a significant positive correlation between perceived quality of marital

relationship and mother's perception of spousal involvement with infant care. Lederman, et al.'s (1981) results support the significant correlation between these factors at six weeks postpartum. Quality of marital relationship is also significantly correlated with maternal satisfaction with life events and confidence in one's ability to cope with the maternal role.

Increased maternal satisfaction with life events correlated positively with confidence in ability to cope with the mothering role, greater satisfaction with the maternal role, and greater support from parents, family and friends. Other studies found that when a woman is more satisfied with the maternal role, she is more likely to see parents and other members of the social network as being helpful (Brouse, 1988; Cronenwett, 1984, 1985a, 1985b; Mercer, 1981, 1985; Younger, 1991).

Women who perceived high emotional support from all members of their social network, perceived higher support for the mothering role. This result coincides with previous studies (Cronenwett, 1984, 1985a, 1985b).

Reliability and Validity

This study also investigated the reliability of and intercorrelations among the PSQ subscales. Cronbach's alpha for the individual subscales ranged from 0.652 to 0.892, suggesting fairly high internal consistency.

These results corroborate findings from other studies in which the values reportedly ranged from 0.73 to .90 at 6 weeks postpartum (Lederman et al., 1981) and 0.66 to 0.90 at six weeks (Tulman et al., 1990).

Intercorrelations among the scales, based on data collected at six weeks, are also comparable to those reported elsewhere. Intercorrelations ranged from -.01 to 0.64 in the current study, from 0.17 to 0.74 in the Lederman et al. (1981) study, and from 0.06 to 0.55 in the Tulman et al. (1990) study. When compared to the reliability scores, the intercorrelation scores are lower. These findings reinforce Lederman et al.'s (1981) position on individual scale uniqueness.

Conclusions

Study results revealed that social supports, network structure and personal factors had differing effects on the various components of the psychological responses to motherhood. Although there was partial support for Cronenwett's proposed model on the relationships among network structure, perceived social support and psychological responses to motherhood, the full extent of the effects of social support require further explanation. In addition, other personal factors, than those tested in this study, may have confounding effects

on the relationship between social supports and psychological factors.

If the impact of demographic, health, knowledge and experience and social support variables on adaptation to motherhood vary over time, studies limited to cross-sectional data will not detect these changes. Based on the changed status of the influence of personal factors on postpartum adaptation and social supports over time, consideration must be given to the period in the postpartum when the data are collected.

Research in the area of transition to motherhood is focused, in part, on developing reliable and valid instruments to measure the major variables proposed to represent different aspects of the process. Attention should be given to more extensive testing of these instruments on different population bases before proceeding with large scale use. This is particular relevant for the SNI which does not consider spouse support or separate out support provided by mothers, fathers and immediate family members.

Limitations of the Study

Study findings are subject to the same limitations of other studies investigating postpartum adaptation. The sample was homogeneous with regards to marital status, race, post-secondary education, and husband's employment

status. However, there were significant differences in method of feeding, previous experience with infants, prenatal class attendance, maternal occupation and age, and type of delivery. Despite the observed differences and the adequate sample size for data analysis, using an alpha of 0.05 and a power of 0.80 to obtain a medium to large effect (Polit & Hungler, 1991), it is not possible to generalize study results to even the accessible population of primiparous mothers because of the convenience nature of the sample and its relative homogenous nature.

Another significant limitation was the use of a cross-sectional design for data collection. Although time and resource constraints severely limited the timeline available for implementing the research process, the comprehensiveness and conclusiveness of the data would certainly have been enhanced by using a longitudinal design. The study would have produced more meaningful findings if the subjects had been recruited earlier in the postpartum period and followed for 4 to 6 months.

A third limitation is the lack of comprehensiveness of the demographic form and the Social Network Inventory (SNI). Specifically, there are additional health and social support variables identified in the literature that correlate with postpartum outcomes. Additional

variables that should have been considered include: perceptions of labor and delivery experiences, infant and maternal complications during birth, maternal fatigue levels and emotional concerns, and infant behavioral and physical concerns. Instruments measuring maternal concerns and functional levels must certainly be incorporated in future studies in this area.

With regards to supports, no information was collected on husband's role in the performance of household activities and infant care, or the availability of parental or hired help for household and infant care activities. The instrument used to examine social supports, the Social Network Inventory (SNI), must be expanded to include these aspects.

A final limitation was the restricted focus on psychosocial adaptation. Consideration should have also been given to functional status, maternal identity and maternal role attainment. This would have allowed further testing of the theoretical model guiding the research.

Implications for Nursing Practice

There is increasing support from research findings for Rubin (1967a, 1967b, 1984) and Mercer's (1981, 1985) theoretical position that adaptation to the maternal role

is a lengthy, and sometimes tumultuous process for primiparas mothers. New mothers are especially vulnerable to early discharge from hospitals following the birth of their baby. The importance of professional support from health care providers in the postpartum is especially crucial given the inconsistent findings on the usefulness of prenatal classes, inhospital education sessions, postpartum parent support groups, and the presence, as well as the effectiveness, of support from members comprising the woman's network structure. Additional, there is a considerable gap between comprehending practical knowledge prenatally and actually implementing that knowledge postnatally.

It is essential that nurses are aware of variables which positively influence the woman's transition to motherhood. Skilful nursing assessment on the postpartum unit, using tools like the postpartum support program (PPSP), to assess a woman's learning needs and identify those potentially at risk for health alterations during postpartum (Affonso, 1987; Donaldson, 1991). This information can be passed on to the appropriate community health nurse. These collaborative efforts are especially crucial given the current trend to early hospital discharge for all mothers who experienced uncomplicated deliveries.

Health professionals, especially community health nurses who visit the new mother at home in the early postpartum, can play a significant role in first assessing the adequacy of spouse, family and friend support networks and, if needs are identified, help them identify available individuals or groups with the most supportive potential.

Furthermore, there is often insufficient professional attention given to maternal physical, emotional and psychological concerns in clinics and groups (ie., breastfeeding clinics, parent support groups, well-baby clinics) because the primary focus tends to be on the infant's health. Nurses also need to be ready to participate in community postpartum support groups. This type of support is especially important for new mothers, who have a limited social support network. Cronenwett (1980) evaluated the value of postpartum support groups for new parents. Most women in the study reported increased self esteem and confidence in their ability to cope with infant care.

Telephone support is another alternative to active community support groups. This type of nursing follow-up via the telephone, is also quite beneficial to new mothers, during the initial six weeks at home, when the multi demands of mothering encompasses new mothers

(Hampson, 1988).

Further, new mothers need to be especially prepared for the significant changes that occur in their network structure and types of support. Prenatal classes should include content and discussion on the most frequent changes in social supports that new mothers can expect.

Education

Literature findings have consistently identified the need for prompt and knowledgeable nursing assessment during early (in hospital) postpartum, followed by community-based nursing assessment and intervention. A theoretical foundation in normal postpartum assessment data should be included in the basic nursing education programs. Application of postpartum assessment skills, including use of assessment tools, for example the PPSP, should be considered an essential component of the childbearing clinical rotation for basic students.

In-service education and continuing education programs need to be provided regularly to all nurses working in maternal child areas. Content should include the most recent research findings from nursing and allied fields. Also greater attention should be given to helping nurses apply significant empirical findings to their practice. This can be accomplished, in part, developing more effective and relevant nursing interventions in order to

facilitate positive adaptation to the maternal role in the postpartum.

Research

Consideration should be given to investigating the relationships among the various components believed to constitute the transition to parenthood construct. Future research should be directed towards further testing of the theoretical model depicting interactions between functional status, maternal identity, psychosocial adaptation and maternal role attainment. Also emphasis should be placed on controlling for the effects of demographic, health, knowledge and experience, and social support variables on the transition process.

Time also surfaces as an important variable affecting the transition to motherhood. More research using longitudinal designs for data collection is certainly needed. Further, it may be equally important to incorporate qualitative components in such studies, especially given the inconsistent findings reported. This would ensure that the data are more accurately capturing new mothers' "true experiences".

It would be beneficial for future research to apply these two instruments (SNI) and (PSQ) to a different population. The subjects in this study were primiparous, married or common-in-law and they were mostly well-

educated. A different sample composed of both primiparous and multiparas mothers would provide valuable comparison data to assess similarities and differences in variables related to maternal adaptation during the postpartum period.

Future research should focus on the type and amount of support provided by husbands. The literature suggests that husbands' support may be the most crucial factor affecting effective maternal adaptation in the postpartum period. Considering the trend of early postpartum discharge, continued research in this area is essential, in order for nurses to better intervene during the early weeks of postpartum, in promoting a health maternal transition to the new mothering role.

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Appendix A

Human Investigation Committee Approval

Memorial
University of Newfoundland

Human Investigation Committee
Office of Research and Graduate Studies (Medicine)
Faculty of Medicine, The Health Sciences Centre

May 19, 1993

TO: Ms. Gola Roberts

FROM: Assistant Dean, Research and Graduate Studies (Medicine)

SUBJECT: Application to Human Investigation Committee - #1229

The Human Investigation Committee of the Faculty of Medicine has reviewed your proposal for the study entitled **"Effects of Social Support of Postpartum Adaptation in Primiparous Women"**.

Approval, subject to the provision in the attached letter from the Committee, has been granted from point of view of ethics as defined in the terms of reference of this Faculty Committee.

It will be your responsibility to seek necessary approval from the hospital(s) wherein the investigation will be conducted.

Notwithstanding the approval of the HIC, the primary responsibility for the ethical conduct of the investigation remains with you.

C. J. Michalski

C.J. Michalski, Ph.D.
Assistant Dean

Attch.

cc: Dr. K.M.W. Keough, Vice President of Research
Mrs. Kay Mathews, Supervisor

Appendix B

Letter Seeking Agency Approval

Gola Roberts
26 Jackman Drive
Mount Pearl, NF A1N 2J9
364-3270
May 31, 1993

Dr. Catherine Donovan
Medical Officer of Health
Eastern Newfoundland Health Unit
P. O. Box 70
Holyrood, Conception Bay, NF
A0A 2R0

Dear Dr. Donovan:

Following conversation with Elizabeth Lundrigan, I am enclosing the required application form, for research through the Department of Health. A copy of the research study proposal, confirmation letter from the Human Investigations Committee (HIC), copies of the questionnaires, letter of explanation for the subjects and the consent form are included.

I trust this meets your satisfaction. If you have any concerns/questions, please contact me at 364-3270.

Thank you for your cooperation and support in this matter.

Sincerely,

Gola Roberts

Appendix C

Approval to Access Patients from the Eastern Health Unit

EASTERN NEWFOUNDLAND HEALTH UNIT
DEPARTMENT OF HEALTH
REGIONAL OFFICE
P O BOX 70
HOLYROOD, NF
A0A 2R0
Tel: (709) 229-3352
Fax: (709) 229-4005

1993 07 14

MEMO TO: Public Health Nurses
Harbour Grace
Bay Roberts
Conception Bay South
St. Joseph's

FROM: Elizabeth Lundrigan, Regional Director
Public Health Nursing Division

RE: Master Student Gola Roberts - Thesis

Please be advised Ms. Roberts will be contacting you directly within a few days for your assistance to contact prospective participants for her research study. You may recall Eva Laing recently distributed information on this research to you. Her research application has been approved by the Department of Health and the Health Unit.

Your usual cooperation is requested and appreciated.

D. E. Lundrigan

D.E. Lundrigan, R.N., M.N.
Regional Director
Public Health Nursing Division

DL/cad

cc Gola Roberts
Catherine Donovan

Appendix D

Subjects' Consent Form

Faculty of Medicine

Memorial University of Newfoundland

St. John's, Newfoundland A1B 3V6

Title: Postpartum adaptation:

primiparous women's experiences.

Investigator: Gola Roberts

You have been asked to participate in a research study. Participation in this study is entirely voluntary. You may decide not to participate or to withdraw from the study at any time. You may also refuse to answer any questions asked by the interviewer.

Confidentiality of information concerning subjects will be maintained by the investigators. The investigator will be available during the study at all times should you have any problems or questions about the study.

Purpose of Study

The purpose of this study is to find out if new mothers adapt to motherhood more easily if they have a strong social support system. The results of this study will help community health nurses and family physicians understand family social support network and plan programs to better the needs of new families.

Description of procedure and tests

Participation in this study will involve responding to

questions about who gives you the most support, and what type of support you find the most helpful. There will also be questions about your relationship with your partner, parents, family and friends, and how satisfied and confident you are about being a new mother.

Permission is requested to interview you. Your name will not appear on the questionnaire sheets. Data sheets will be stored in a locked file and only the investigator will have access to them. When the study is over, they will be destroyed.

Duration of subjects participation

You are being asked to participate in one interview. It is anticipated that the interview will take approximately forty-five minutes to one hour.

Foreseeable risks, discomforts or inconvenience

There are no expected risks from the questions that you will be asked during the interview. However, you may refuse to respond to any questions on the questionnaires that make you feel uncomfortable. The only inconvenience to the subjects is the personal loss of time.

Benefits which the subject may receive

You may not benefit directly from this study. However, if you agree to participate, the information that you give may help nurses and doctors in planning care to new mothers during the postpartum period.

Alternative procedures or treatment for those not entering the study

Participation in this study is entirely voluntary and you may decide to withdraw at any time.

Any other relevant information

If there are any areas of this study that are not clear, please feel free to ask any questions before signing the consent form. If you have questions or concerns after the questionnaires are completed, please feel comfortable to contact the investigator at the telephone number provided. Findings will be available to you and nursing/medical professionals upon request.

I, _____, the undersigned, agree to my participation in the research study described.

Any questions have been answered and I understand what is involved in the study. I realize that participation is voluntary and that there is no guarantee that I will benefit from my involvement. I acknowledge that a copy of this form has been offered to me.

_____ _____
(Signature of Participant) (Date)

To be signed by investigator

To the best of my ability I have fully explained to the subject the nature of this research study. I have invited questions and provided answers. I believe that the subject fully understands the implications and voluntary nature of the study.

_____ _____
(Signature of Investigator) (Date)

Phone Number _____

Appendix E

Social Network Inventory (SNI)

Social Network Inventory

Cronenwett (1985)

Column A:

In this column, we would like you to list at least one and at most ten people who are important in you life **right now**. These people may be family members, neighbors, co-workers, or friends. Do not include your spouse on your SNI. The people you list should be those with whom you share something significant -- anything from a favourite sport or hobby to your innermost thoughts and feelings. Do not write out the whole names of these people. Instead, just enter three letters for each person -- the first letter in the first name and the first two letters of the last name. For instance, if the person's name was Mary Smith, you would enter MSM. It is not necessary to enter ten names. Only list people who are truly meaningful to you. On the other hand, if you have more than ten people you would like to name, just list the ten most important ones.

Column B:

Please show us the marital status of each person in Column A by entering the number from the list shown here which describes each person's state.

1 = Never Married

2 = Married

3 = Separated

4 = Divorced

5 = Widowed

Column C:

Please list the approximate age of each person listed in Column A.

Column D:

Insert one of the following letters in Column D to indicate what relationship you hold with each person in Column A; that is, insert

R if this person is a relative

CW if this person is a co-worker

N if this person is a neighbor

O if this person is any other kind of friend

Column E:

Answer the question shown below for each person in Column A. Enter either **Yes** or **No** in the spaces under Column E.

Question: Does this person have any children?

These can be biological, adopted, or stepchildren.

Column F:

If the answer to the question in Column E was **Yes** for anyone, please show the approximate ages of their children by entering these ages in Column F.

Column G:

Please show how long you have known each person in Column A by entering the number of years in Column G. If you have known some persons in your SNI less than one year, show what fraction of a year you have known them, such as 1/2.

Column H:

Enter the average number of days per week in which you have contact with each person listed in Column A. By contact we mean any form of communication -- whether it is by telephone, by letter, or face-to-face. If you have contact with a particular person less than once a week, enter an X.

Column I:

We would like you to think about the people you have listed in terms of what kinds of support they give. Four kinds of support are described below. Please refresh your memory about the definitions of each of these types of support before filling in Column I.

A. Emotional - The person communicates love, caring, trust, or concern for you.

B. Material - The person directly helps you, such as through gifts of money, help with house chores, help with your work, etc.

C. Information - The person tells you things you need to know; helps your solve your problems by sharing information or finding out things for you.

D. Comparison - This person helps you learn about yourself just by being someone in the same situation or someone with similar experiences; he or she is like you in some important way and you feel supported because you can share ideas and feelings with someone like yourself.

Now, thinking about the people you've listed, show which kind or kinds of support you get from each person by writing A, B, C, and/or D next to that person under Column I. If you receive none of these forms of support from a person, enter an X in that person's space. In other words, you may be entering an X or you may be entering one letter or any combination of A, B, C, D next to each person.

Column J:

In the last column, please enter **M** for male or **F** for female to indicate the gender of each person in your SNI.

Social Network Inventory

List the people who are the most significant

	A	B	C	D	E	F	G	H	I	J
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										

Appendix F

Postpartum Self-Evaluation Questionnaire (PSQ)

Postpartum Self-Evaluation Questionnaire

Direction — Lederman (1981)

The statements below have been made by mothers of young infants. Read each statement and decide which response best describes your feelings. Then circle the appropriate letter next to each statement.

		(1) Very much so	(2) Moder-ately so	(3) Some-what so	(4) Not at all
1.	I know what my baby likes and dislikes.	1	2	3	4
2.	My husband participates in the care of the baby.	1	2	3	4
3.	It bothers me to get up for the baby at night.	1	2	3	4
4.	My husband is understanding (calms me) when I get upset.	1	2	3	4
5.	This baby is a financial burden for us now.	1	2	3	4
6.	Childbirth gave me a feeling of accomplishment.	1	2	3	4
7.	My husband feels that caring for the baby is not his responsibility.	1	2	3	4
8.	We need more things than we can afford to buy.	1	2	3	4
9.	My recent delivery made me proud of myself.	1	2	3	4

	(1) Very much so	(2) Moder-ately so	(3) Some-what so	(4) Not at all
10. I feel close to my husband.	1	2	3	4
11. It is boring for me to care for the baby and do the same things over and over.	1	2	3	4
12. I am uncertain about whether I can make the right decisions for my baby.	1	2	3	4
13. My husband helps as little as possible with child care.	1	2	3	4
14. When the baby cries, I can tell what s/he wants.	1	2	3	4
15. I have friends or relatives who reassure me as a mother.	1	2	3	4
16. My husband spends time with the baby.	1	2	3	4
17. My patience with the baby is limited.	1	2	3	4
18. I am concerned about raising children in the neighborhood we live in.	1	2	3	4
19. My parents criticize me as a mother.	1	2	3	4
20. I am unhappy with the amount of time I have for activities other than child care.	1	2	3	4

	(1) Very much so	(2) Moder-ately so	(3) Some-what so	(4) Not at all
21. My husband gets annoyed when I ask him to help with the care of the baby.	1	2	3	4
22. I enjoy taking care of the baby.	1	2	3	4
23. I am upset about having too many responsibilities as a mother.	1	2	3	4
24. It is hard to talk to my husband about problems I have.	1	2	3	4
25. When bathing and diapering the baby, I would like to be doing something else.	1	2	3	4
26. I have doubts about whether I am a good mother.	1	2	3	4
27. I would like to be a better mother than I am.	1	2	3	4
28. I remember labor as unpleasant and frightening.	1	2	3	4
29. I can talk to some of my friends or relatives about questions I have concerning mother-hood.	1	2	3	4
30. My budget allows me to get the help I need with housework and other tasks.	1	2	3	4

	(1) Very much so	(2) Moder-ately so	(3) Some-what so	(4) Not at all
31. My husband criticizes me as a wife.	1	2	3	4
32. My husband wants to share in the care of the baby.	1	2	3	4
33. I am glad I had this baby now.	1	2	3	4
34. I get annoyed if the baby frequently interrupts my activities.	1	2	3	4
35. I am concerned about having a steady income for my family.	1	2	3	4
36. I feel that I know my baby and what to do for him/her.	1	2	3	4
37. My husband would rather spend time at work or a hobby than be with me.	1	2	3	4
38. My husband cares about how I feel.	1	2	3	4
39. My husband makes me feel I am a burden to him.	1	2	3	4
40. I have friends or relatives who encourage me to care for the baby in my own way.	1	2	3	4
41. I am able to hire a baby-sitter when I need one.	1	2	3	4

	(1) Very much so	(2) Moder-ately so	(3) Some-what so	(4) Not at all
42. I enjoy being a mother.	1	2	3	4
43. When I am feeling down or depressed, my husband reassures me.	1	2	3	4
44. Feeding the baby gives me a feeling of satisfaction.	1	2	3	4
45. My husband and I are having problems with our marriage.	1	2	3	4
46. My parent(s) are interested in the baby.	1	2	3	4
47. I feel joyful when I remember the birth of the baby.	1	2	3	4
48. I feel I reacted badly to the pain of labor.	1	2	3	4
49. I can share my thoughts and feelings with my husband.	1	2	3	4
50. I am concerned about being able to meet the baby's needs.	1	2	3	4
51. There is enough money for all my family's basic needs.	1	2	3	4
52. I don't know how to care for the baby as well as I should.	1	2	3	4

	(1) Very much so	(2) Moder-ately so	(3) Some-what so	(4) Not at all
53. I play with the baby between feedings when she/he is awake and quiet.	1	2	3	4
54. My husband shows an interest in the baby.	1	2	3	4
55. Discussions I have with my husband end in arguments.	1	2	3	4
56. My husband lets me down when I need him.	1	2	3	4
57. When the baby cries, my husband ignores it.	1	2	3	4
58. I have regrets about how I coped with labor.	1	2	3	4
59. I trust my own judgment in deciding how to care for the baby.	1	2	3	4
60. I know what my baby wants most of the time.	1	2	3	4
61. I can rely on friends or relatives to help me with the baby when necessary.	1	2	3	4
62. I am unsure about whether I give enough attention to the baby.	1	2	3	4
63. I feel burdened with the many demands made on me as a mother.	1	2	3	4
64. My husband dislikes caring for the baby.	1	2	3	4

	(1) Very much so	(2) Moder-ately so	(3) Some-what so	(4) Not at all
65. My parent(s) make me feel like there is little I can do right.	1	2	3	4
66. I feel disappointed in the delivery experience I had.	1	2	3	4
67. I have friends or relatives who are interested in the baby.	1	2	3	4
68. I worry about how we will manage on our present income.	1	2	3	4
69. My parent(s) think I should take better care of the baby.	1	2	3	4
70. Giving birth was gratifying to me.	1	2	3	4
71. My husband avoids helping me with child care.	1	2	3	4
72. My parent(s) think I should take better care of the baby.	1	2	3	4
73. Giving birth was gratifying to me.	1	2	3	4
74. My husband avoids helping me with child care.	1	2	3	4

	(1) Very much so	(2) Moder-ately so	(3) Some-what so	(4) Not at all
75. I would prefer to go to work or classes and have someone else care for the baby.	1	2	3	4
76. I am unsure of what to do for the baby when she/he cries.	1	2	3	4
77. My parent(s) seem to like the way I care for the baby.	1	2	3	4
78. I have friends or relatives who think I am a good mother.	1	2	3	4
79. I feel good about how I handled myself during labour and delivery.	1	2	3	4
80. My parents show little interest in the baby.	1	2	3	4
81. I feel secure about my future financial situation.	1	2	3	4
82. I have confidence in my ability to care for the baby.	1	2	3	4

Appendix G

Demographic Data Sheet (DDS)

Demographic Data Sheet

ID Code #: _____

Date: _____

Location of interview: _____

Time to complete: _____

1. Age: _____
2. Marital Status: _____
3. Grade completed in high school: _____
4. Number of years of post secondary schooling:

   some university _____

   completed university _____

   some vocational education _____

   completed vocational education _____
5. What is your occupation: _____
6. Type of delivery:

   a) vaginal _____

   b) caesarean section _____
7. Did you attend prenatal classes: Yes _____ No ____
8. How are you feeding: breast _____ bottle _____
9. (a) Have you had previous experience with babies:

   none _____

   some _____

   alot _____

   (b) If so, please explain:

   _____

10. Is you husband presently employed?

    Yes_____ No_____

11. Is your husband required to be away from home often?

    (a) Yes_____ No_____

    (b) Please explain _____

    _____

    _____